NEW REMEDIES.

A MONTHLY JOURNAL OF

MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

VOL. V., NO. 2, WHOLE NO. 20.

FRED'K A. CASTLE, M.D., - - EDITOR.
CHARLES RICE, - - ASSOCIATE EDITOR.

PUBLISHED BY

WILLIAM WOOD & CO., No. 27 Great Jones St., N. Y.

FEBRUARY 15TH, 1876.

SUBSCRIPTION PRICE, per year - - - - - **$1.50**
SINGLE COPIES, - - - - - - - - - **.15**

ADVERTISING RATES.

	1 Month	3 Months	6 Months	12 Months
One Page	$35 00	$90 00	$150 00	$250 00
½ " or one Column	20 00	50 00	90 00	150 00
¼ " or ⅛ "	12 00	30 00	50 00	90 00
¼ Column	8 00	20 00	30 00	50 00
⅛ "	5 00	12 00	20 00	30 00
1/16 "	3 60	8 00	12 00	20 00

No advertisement taken for less than 1/16 column.

PUBLISHERS' NOTICES.

THE edition of NEW REMEDIES this month is 6,000 copies.

30,000 to 40,000 persons may be safely estimated to have read the January number of NEW REMEDIES. Advertisers please notice.

Specimen copies sent free to any address upon application.

Druggists' clerks and employés seeking situations may insert an advertisement, not over five lines long, about fifty words, in NEW REMEDIES, *free of charge*.

Thirty-two pages of solid reading matter, every month, in NEW REMEDIES, with ever so many pages of advertisements thrown in without extra charge to our subscribers.

A trade journal, with few advertisements, must almost necessarily be a poor affair. The greater its advertising patronage the greater its financial ability to satisfy its subscribers.

No live business man omits to carefully look over the advertisements.

Manufacturing and export chemists and druggists, in all parts of the world, will find NEW REMEDIES *the best* medium through which to reach the trade in the United States. Its circulation is to all the wholesale and leading retail dealers.

Druggists' sundry men will find it reaches the class they are interested in.

Correspondence is invited.

EDITORIAL.

ALTHOUGH strong efforts have for several years been made by British manufacturers to secure a government registration of trade-marks, nothing has been accomplished, practically, until now. The cutlers of Sheffield have for a long time possessed a system of registration of their own, and quite recently other manufacturers have taken advantage of the facilities offered by the Stationer's Company to record their distinctive trade-marks, labels, etc. On the 1st of January, however, an act of Parliament went into force which gives to the proprietors of such distinguishing marks the first governmental protection from infringement or counterfeiting which they have possessed in Great Britain. The example of our own system has aided, in no small degree, to secure the establishment of such registration. As foreigners are to have the same privileges as British subjects under the Act, we quote a synopsis of it from the *British Trade Journal* of Jan. 1st.

"The rules under the Trade Marks Registration Act, signed by the Lord Chancellor, with the scale of fees approved by the Treasury, were issued on the 30th. The Registry Office, situated in Quality Court, Chancery Lane, is opened on this day, the Registrar appointed being Mr. H. Reader Lack, of the Board of Trade. There are sixty-five rules, and three schedules. The fees will not be received in cash. They may be paid by a post-office order, payable to the Registrar at the General Post-Office; or, if they exceed £5, may be paid by a cheque drawn to the Registrar of Trade Marks or bearer, and crossed 'Bank of England.' A person, whether a British subject or an alien, desiring to register a trade-mark, is to apply to the Registrar by sending him a statement, accompanied by the declaration set forth, and the prescribed fee. An application is to be inserted in the 'official paper,' and the official paper is to be some paper published under the directions of the Commissioners of Patents, or such other paper as such Commissioners or any one of them may from time to time direct. On the expiration of three months from the date of such advertisement, the Registrar, if he is satisfied that the applicant is entitled to registration, is to register the trade-mark. The first schedule contains a classification of goods, with illustrations, for registration; the second schedule the fees payable to the Registrar. The fees vary from 1*s.* to £2. In the third schedule there are forms to be used in observing the new law. The Act of the late session (38 and 39 of the Queen, c. 91), under which the registry office is opened, declares that from and after July 1, 1876, a person shall not be entitled to institute any proceeding to prevent the infringement of any trade-mark as defined, until and unless such trade-mark is registered. The Court mentioned in the statute is to mean the Chancery Division of the High Court of Justice."

For purposes of registration there are fifty classes. The question of the legality of the refusal to accept coin in the payment of fees has

been raised, but the strongest criticism is made by Mr. Rimmel, who thinks that *the* fault of the new act is the extension of "the denominations of trade-marks far beyond their natural and requisite limits."

Mr. Booth, of the Senatorial Committee on Cities, has presented a bill to the Legislature of this State which provides for some slight alterations in the laws which at present govern the practice of pharmacy in New York City. As an example of the manner in which the Board of Pharmacy has enforced the existing law (passed in 1872), it is mentioned that there are now less than ten unregistered pharmacists in the district. A number of cases have been brought before the Court of Special Sessions, and of these two have been fined $50 each, while the others became registered before their cases were called.

It is desirable to make such a change in the law, as it now stands, as will require an annual registration, with the payment, at most, of a nominal fee. At present the want of such a provision admits of the sale or disposal of pharmacies to unlicensed persons, who carry on the business under the old title.

An indication of the proportions reached by the trade in proprietary remedies in the United States can be gained from the fact that a bill is before Congress to provide for the admission, without duty, of the drugs and chemicals consumed in the manufacture of these goods for export and the statements that have been made by the parties interested, showing that the pecuniary interest involved in this business is to be estimated by millions.

The Chemist and Druggist of Jan. 15 gives a list of ninety-two British firms more or less closely connected with the trade in drugs, chemicals, instruments, etc., who will exhibit their wares at the coming display at Philadelphia. There seems to be no doubt at present that the number of exhibitors in these, as well as all other departments, will be quite equal to the accommodations.

THE NEW YORK DRUG MARKET.

Seldom, in fact never, have we seen the importing druggists in so discouraged a condition, and so generally disgusted with the way trade is moving, as at present. There is scarcely an article on the list but has shown a decline during the past six months. Goods bought some time ago at "hard-pan," and considered very cheap, have steadily fallen, and left the holders with more or less loss. This state of things has continued so long, and has been so universal, that the entire trade has become timid to a degree that only renders matters worse. The strangest fact is, that in most articles stocks are unusually light both abroad and here, and did there exist even a fair demand, higher prices would certainly follow; but the demand being very moderate makes all holders anxious sellers, and so prices are forced down in the face of circumstances which, in a period of good demand and confidence, would have the opposite effect.

Notwithstanding this condition of affairs a hopeful tone seems to pervade the trade, owing to the increased business almost certain to be produced by the Centennial. That such must result seems to admit of little doubt; for the presence of so many foreigners with money to spend, the foreign demand that must to a certain extent be produced for our manufactures, and the increased expenditure of our own people, must infuse more life into this as well as other kinds of business. That this will be permanent, however, we can scarcely dare to hope, unless something is done in Congress to resume specie payments, or at any rate make a decided move towards a gradual but steady contraction. This being once started, will undoubtedly have its effect in restoring both the spirits and confidence of business men in all branches, the steady decline of the prices of merchandise will be checked, and although we cannot look for the rushing trade and profits of war times, yet a safe and healthy traffic that will leave a living margin to all will follow.

Opium remains in a stagnant position, there being no demand except to supply pressing needs. The reports from Turkey are very favorable for the growing crop, and should no damage occur we can see no reason to expect higher prices. This state of things has of course stopped all speculation in the article. Prices range from $5.12½ to $5.25 gold, by the case.

Morphia remains quiet at $4.25 for P. & W. in round lots, and will of course be governed in the future by the prospects of the opium crop.

Quinia is in small demand and no material advance is looked for.

Quicksilver has reached a very low price, being obtainable at 65c. @ 70c. gold. The demand is slight, large buyers not being inclined to invest to any considerable extent.

Camphor is very firm, and lower prices are not expected. The stocks of crude are nearly exhausted, and lots to arrive are not large. We consider the present a good time to buy, for we cannot see that anything can be gained by waiting. Price in lots 26c.

Cantharides, though not in very large stock, are dull and weak owing to lack of demand and lower prices abroad. They can be bought just now as wanted at $1.30.

Sugar of Lead is quiet at 18c. @ 18½c. for prime

white, at which price it has remained for a long time past.

Citric Acid has been quiet but steady at 79c. @ 80c. gold, being the lowest price that it has reached for about three years. The domestic manufacturers of this article have succeeded in almost driving out the foreign makers, and should the duty be unchanged the foreign must eventually be entirely excluded.

Chlorate of Potassium having been advanced about a month ago to 23c. gold, has weakened lately, and can now be had for 22c. @ 22½c. gold.

Iodide of Potassium quiet at $2.40 for P. & W. and C. P. & Co.

Carbonate of Ammonium has reached a price that has not been seen for many years, viz., 13½c. @ 13¾c., gold, for 5 cask lots. The low price is owing to excessive competition, and it can only be a question of time before former prices are partly or entirely restored. The manufacture of this article has been commenced by a New York house, but as yet they are unable to compete with foreign makers in price, although in quality the American is perhaps superior.

Gum Shellac, after having remained between 60c. and 90c. for quite a long period, has at last declined and can be bought just now at 53c. for D. C. Higher prices are not expected, nor do we look for much change either way.

Castor Oil has at last reached "ante-bellum" prices, and Baker's can be had for 13½c. in cases. The West is producing very largely, but most of the mills have already sold their production for some months to come. No immediate change is looked for, but the present price is certainly a safe one.

Gum Arabic is quiet and unchanged, and like most other goods prices are low.

Balsam of Copaiba is in good stock, and unless forced up by speculators (which is doubtful), we think must be lower. In a jobbing way it can be had at 69c. @ 70c.

Venice Turpentine dull and nominal at 18c. Stocks are not large, but the approach of spring makes holders more anxious to get rid of them.

Burgundy Pitch steady and firm at 8c., being held principally by one house.

Balsam of Tolu, under recent arrivals, is slowly returning to a more normal condition, and can be had for $1.50.

Squills are high, being controlled by one party, and held for 13c. to 14c.

Manna, S. F., is slowly reaching old prices, and can be had for 45c. We see no reason to expect higher prices. Large flake is $1.10.

Castile Soap.—Mottled has become quite scarce, and all lots on the spot have been taken up, and 9c. @ 9½c. is demanded from vessel. The unsatisfactory business in this article has discouraged importers to such an extent, that stocks became very low, and hence the advance. We do not look for much change for some months to come. Conti's white soap sells freely at 16c.

Assafetida is very cheap at present prices, and we consider the article a safe investment. Stocks are large, it is true, but should much decline take place, speculators will take hold of it to hold for higher prices. Good quality gum can be had for 12½c. Prime Calcutta tears at 14c.

Essential Oils of nearly all kinds are dull and quiet, and have been in this condition for some months past. Sanderson's Oil of Lemon, $3.30; N., A. & Co., $3.15; Donner's, $3.20, all gold. Sanderson's Oil Bergamot, a little firmer than during the past fortnight, and has advanced from $3.30 @ $3.50 @ $3.60, gold. Oil of Sassafras, owing to the very open winter, has been largely produced and thrown upon this market in such quantities, that the price has declined from 65c. to 55c., at which figure it is hard to sell, and must, we think, go still lower.

Canary Seed has become weaker, and holders are pressing sales at lower prices. The price just now is a high one, much above the average, and we cannot advise large purchases.

Bicarbonate of Sodium has been on the decline, and English can be had for 4¼c. gold. American has been recently reduced to 3¾c. ccy. for Dwight's. Sal Soda has been as low as $1.30 gold, but has recently been advanced to $1.37½ @ $1.40 gold, for English.

MATERIA MEDICA.

Bankoul Nut.

M. CORENWINDER (*Jour. de Pharm. et de Chimie*, October, 1875) gives the following account of a product hitherto but slightly noticed: Bankoul nut is the fruit of a tree of the order Euphorbiaceæ, the botanical name being *Aleurites triloba*. It is found in the Moluccas, Ceylon, the islands of the Pacific, in Cochin China, in New Caledonia, etc. The fruits, which are produced in great numbers, fall to the ground as soon as ripe.

This nut consists of a hard and woody endocarp and oily albumen. The albumen contains 62.175 per cent. of oil, and 22.653 per cent. of azotized bodies. The ash consists chiefly of phosphate of potash and earthy phosphates. The expressed oil being purgative, is not suitable for alimentary purposes, but its illuminating power is superior to that of colza oil, and it may be used without refining. The cost of importation of the nut alone prevents its successful application to a variety of purposes.

The statements of another writer in the same journal, whose name is not mentioned in the *Chemist and Druggist*, from which we take these extracts, is quite at variance with those of M. Corenwinder, as well as the experience of Dr.

Calixte Oxamendi, quoted on page 310 of the last volume of NEW REMEDIES. This anonymous writer says:

"The recent communications of M. Corenwinder to the Academy of Sciences (*Jour. de Pharm. et de Chimie*, Oct., 1875) have aroused much interest on the subject of the bankoul tree (*Aleurites triloba*, Forster; *Aleurites ambinux*, Person; *Croton Moluccanum*, L.), and the oil which it furnishes in large quantities. M. Corenwinder, of Lille, has presented this product as offering special advantages, both in medical and economic points of view, but having during a two years' residence in New Caledonia occupied myself in studying this native of the soil, which grows there in great abundance, and as I cannot, after very careful research, confirm some assertions by M. Corenwinder, I believe it to be my duty to repeat and to develop certain observations made in one of my published works. I shall be happy if by this means certain unwarranted anticipations which are based on hazardous notions, and are certainly not the fruit of experiment, should be extinguished.

"Bankoul nut, or Molucca nut, is a large tree of the family Euphorbiaceæ, widely distributed in tropical countries. It grows spontaneously and profusely in the Moluccas and in most of the Pacific Archipelagoes, it has been naturalized in the Antilles and Reunion Island, from which two colonies the principal supply reaches us. The most useful and interesting part is the fruit, which resembles a nut, and the kernel of which furnishes a quantity of oil, asserted by authors who have written on this subject to be purgative. M. Corenwinder has repeated this opinion. My experience has been such, however, as to permit me to positively affirm that in its normal condition its action is never similar to that of castor oil, for example. At the military hospital of Nouméa, being without the latter purgative for nearly a year, I attempted to substitute bankoul oil, prepared by myself from the freshest possible nuts. In no case could I perceive any marked effect without giving a dose of 80 grammes; 60 grammes acted simply as a very slight laxative. Can an oil which requires to be given in quantities such as the foregoing be properly termed a purgative? The action is precisely the same as that of olive oil and oil of sweet almonds. During my experiments, I discovered none of those resinous principles, to the presence of which I attribute the powerful action of the oils of *Croton tiglium* and *Jatropha curcas*, and the properties of which I have indicated in *Fontainea Pancheri*. It is remarkable that in the cases of *Ricinus communis* and Spurge the oil obtained by pressure is not drastic, whilst the employment of the smallest quantity of the seed itself is dangerous. It is well known that one castor-oil seed will give purgative effects equal those of 30 grammes of the oil. This fact is explained, as far as the bankoul nut is concerned, by the separation of the fatty bodies from the resin, which latter remains almost wholly in the residue, from which I obtained it by alcohol. The product when distilled gave a residue which, mixed with the oil obtained by simple pressure, greatly increased the purgative qualities of the latter. The same fact is noticeable in *Fontainea Pancheri*, and without wishing to establish a premature generalization, I would remark that pharmacists should not lose sight of the influence which the mode of preparation exerts upon purgative oils.

"From an economic point of view I wish to draw attention to a singular and important fact. The colonial administration of New Caledonia, happy to have found a native substitute for the colza oils, imported at great inconvenience from Europe, resolved to employ bankoul oil for lighting purposes. In spite of every effort, the experiment was not successful. The oil possesses the singular property of attacking the tin lamps or vessels in which it is used; even platinum resisted the action of the oil only a little longer. I was commissioned to discover the cause of this disadvantage, but, in common with my predecessors in the colony, failed to do so, and we were compelled to renounce its use. This proves that the oil is far from an efficient illuminating agent without refining, as M. Corenwinder suggests. But I am convinced that it is sufficient to notice this fact, as the difficulty will doubtless be quickly overcome by the able chemist who has made bankoul oil the object of his studies. For this object I have made the preceding remarks."

The Growth and Uses of Benzoin.

THE benzoin or frankincense, in commercial parlance called "Benjamin," is a more common article of commerce than camphor. Although in general request for the ceremonies of the Romish, Mahomedan, Hindu, and Chinese worship, there is no evidence that the Greeks or Romans, or even the early Arabian physicians, had any acquaintaince with benzoin; nor is the drug to be recognized among the commodities which were conveyed to China by the Arab and Persian traders between the tenth and thirteenth centuries, although the camphor of Sumatra is expressly named. The first mention of benzoin occurs in the "Travels of Ibn Batuta," who, having visited Sumatra during his journey through the East, A.D. 1325–49, notes that the island produces *Java Frankincense* and camphor. There is no further information about the drug until the latter half of the following century, when it is recorded that in 1461 the Sultan of Egypt sent to Pasquale Malipiero, Doge of Venice, amongst other articles, a present of 30 *rotoli* of *Benzoi*. Agostino Barberigo, another Doge of Venice, was presented in similar manner, by the Sultan of Egypt, with 35 *rotoli* of aloes wood, the same quantity of *Benzin*, and 100 loaves of sugar. The occurrence of benzoin in Siam is noted in the journal of the voyage of Vasco da Gama; and the Portuguese traveller Barbosa, who visited Calicut, on the Malabar coast, in 1511, mentions *Benzin* among the more valuable items of export. In the early part of the

seventeenth century there was direct commercial intercourse between England and both Siam and Sumatra. An English factory existed at Siam until 1623, and benzoin was doubtless one of the commodities exported.

The tree which produces this so-called gum does not attain to any considerable size. It is an inhabitant of the hot plains, and flourishes best in the rich moist lands fitted for the cultivation of marsh rice. The plants are propagated from a seed, which resembles a small brown nut, and but little care is required except to keep the shrubs clear from weeds. Before the sixth or seventh year the gum is obtained by making incisions in the bark, when the substance exudes, and is scraped off in like manner as the opium poppy. The first juice is the purest and most fragrant, and hardens on exposure to the air, when it becomes brittle and transparent. The resin is white and transparent, and about three pounds are given by each tree. The white Benjamin is termed *cowrie luban* in India, and is a superior kind. Afterwards a browner description is extracted, and finally, when the tree has become exhausted, and has been cut down, an inferior kind is obtained from the scraping of the wood. The three different varieties accordingly bear relative values in commerce. The resin which exudes during the first three years is said to be fuller of white tears, and therefore, of finer quality than that which issues subsequently, and it is termed by the Malays *Head Benzoin.* That which flows during the next seven or eight years is browner in color and less valuable, and is known as *Belly Benzoin;* while the third sort, obtained by splitting the tree and scraping the wood, is called *Foot:* this last is mixed much with bark and refuse. Benzoin is brought for sale to the ports of Sumatra in large cakes, called *Tampangs,* wrapped in matting. These have to be broken, and softened either by the heat of the sun or by that of boiling water, and then packed into square cases, which the resin is made to fill. A variety of the Sumatra benzoin is distinguished by the London druggists as *Penang Benjamin* or *Storax-smelling Benjamin.* The quality is very fine, full of white tears—some of them two inches long—the intervening resin being grayish. The odor is very agreeable, and perceptibly different from the Siam, or the usual Sumatra sort.

The only account of the collection of *Siam Benzoin* is that given by Sir R. N. Schomburgk, for some years British consul at Bangkok. He represents that the bark is gashed all over, and that the resin which exudes collects and hardens between it and the wood, the former of which is then stripped off. This account is confirmed by the aspect of some of the Siam benzoin of commerce, as well as by that of pieces of bark, but it is also evident that all the Siam drug is not thus obtained. Schomburgk adds that the resin is much injured and broken during its conveyance in small baskets on bullocks' backs to the navigable parts of the Menam, whence it is brought down to Bangkok. The most esteemed sort is that which consists entirely of flattened tears or drops, an inch or two long, of an opaque, milk-like, white resin, loosely agglomerated into a mass. More frequently the mass is quite compact, consisting of a certain proportion of white tears of the size of an almond downwards, imbedded in a deep, rich amber-brown translucent resin. Occasionally the translucent resin preponderates, and the white tears are almost wanting. In some packages the tears of white resin are very small, and the whole mass has the aspect of a reddish-brown granite. There is always a certain admixture of bits of wood, bark, and other accidental impurities. The white tears, when broken, display a structure with layers of greater or less translucency. By keeping, the white milky resin becomes brown and transparent on the surface. It is very brittle, the opaque tears showing a slightly waxy, the transparent a glassy fracture. It easily softens in the mouth, and may be kneaded into the teeth like mastic. It has a delicate balsamic, vanilla-like fragrance, but little taste. When heated it evolves a more powerful fragrance, together with the irritating fumes of benzoic acid; its fusing point is 75° C. The presence of benzoic acid may be shown by the microscopical examination of splinters of the resin under oil of turpentine. Siam benzoin is imported in cubic blocks, which take their form from the wooden cases in which they are packed while the resin is still soft. The Sumatra kind is imported in cubic blocks, exactly like the Siam, from which it differs in its generally grayer tint. The mass, however, when the drug is of good quality, contains numerous opaque tears, set in a translucent, grayish-brown resin, mixed with bits of wood and bark. When less good the white tears are wanting, and the proportion of impurities is greater. In odor it is both weaker and less agreeable than the Siam drug, and generally falls short of it in purity and handsome appearance, and hence commands a much lower price.

The medicinal properties of benzoin are very slight, but it is employed for many different purposes. The Java chiefs are fond of smoking it with tobacco, and the worst kind is more esteemed by the Arabs than their own best olibanum or frankincense. In perfumery it enters into a large number of preparations, such as fumigatory pastilles, *Poudre à la Marechale,* etc.; the alcoholic tincture, mixed with 20 parts of rose water, forms the cosmetic virginal milk. In certain varnishes on snuff-boxes and walking-sticks, when heated in the hand, the agreeable odor of benzoin is emitted, and it is added to the spirituous solution of isinglass, with which court plaster is made. The use of benzoin for religious observances amongst nations in various stages of civilization, and the steady demand for it in all ages, declare that it is one of those commodities the taste for which is inherent in our nature, and not the result of a particular caprice with any individual people, as in the case of Malay camphor with the Chinese.—*The Chemist and Druggist,* December.

Use of Nascent Chloride of Ammonium as an Inhalation.

SAL-AMMONIAC is a very ancient remedy, and perhaps is more prized in Germany as an alterative, secernent, and absorbent medicine than in any other country. In chemical composition it is analogous to common salt, differing from it in the substitution of ammonium for sodium. It is well borne by the system, and is not poisonous in the ordinary sense of the term. Of late, attention has been called to it as an excellent remedy in affections of the liver. Mild in its action, capable of being taken continuously for some time, and at the same time stimulating to increased hepatic action, it is deservedly worthy of esteem by the modern practitioner. For some years those engaged in the specialty of diseases of the throat have employed it as a stimulant to the chronically inflamed tissues of the pharynx and larynx. It has been administered, however, in an exceptional form, called nascent, that is, as it is first born or produced; and it is administered by inhalation only. The process of its production is very simple. Every student of medicine is familiar with the effect produced by bringing together the vapors of ammonia and muriatic acid. It has the appearance of smoke, but its physical and chemical qualities are far different. The chloride of ammonium is, as it were, born on the spot, and the crystals (for they prove to be such under the microscope) are so small and light as to float about freely in the atmosphere in the form of a light cloud of smoke. In this condtion it is very easy to see how readily it can be inhaled and drawn into the lungs, and come into direct contact with the diseased surfaces. In fact, this method of administration becomes a topical application practically, by the diffusion of gases, and thus its topical effects may be produced as well as the systemic. The taste of the nascent NH_4Cl is very pleasant and agreeable when it is exactly neutralized. And just here lies the nice point of administration. There are a variety of physical combinations designed to produce this compound. Some of them may be found in the shops. Kirkwood's inhaler is the best of these forms of apparatus. The objection to most of them lies in their expense. There are, however, means within the reach of the ordinary physician which are sufficiently efficacious and cheap. The writer has usually found a common large-mouthed pint or pound bottle—such as Dover's powder comes in—to answer the purpose of the reservoir. Two holes are perforated through the cork, one for a bent glass tube one-fourth of an inch in diameter (a common clay pipe will answer, the bowl-end being used for breathing), and the other for a glass or tin or lead funnel. The use is very simple. An ounce or two of the acid is placed in the bottle, and the cork with tube and funnel is fitted into the neck of the bottle. A sponge moistened with ammonia is placed in the open mouth of the funnel, loosely, and the apparatus is complete. It is then used by drawing in the breath through the tube; immediately the vapor of the ammonia descends through the funnel, meets the vapor of the acid, and the whole reservoir is filled with a dense white cloud of nascent chloride of ammonium. The first effect is somewhat irritant; the saltish, sweetish taste is very prominent; cough is induced, and some little excitement is occasioned. This, however, soon passes away if the neutralization of the acid is complete. When this is not the case, either an acrid, stimulating taste of the ammonia is perceived, or the disagreeable taste of the acid is prominent. When the ammonia is prominent more acid should be put in; when the acid is prominent the ammonia should be increased. It is best at first not to use the stronger preparation. The inhalation may be short (a few whiffs) and frequent rather than long and infrequent. Three or four inhalations are sufficient at one time, and may be repeated half-hourly, or as the patient may desire, for there is no danger of administering too much, as very large doses of sal-ammoniac are borne with impunity. Affections for this treatment as indicated are typhoid pneumonia, and capillary and senile bronchitis.—E. Cutter, M.D., in the *Boston Jour. of Chem.*

Quinetum.

A PREPARATION of the whole alkaloids separated from East India red bark has been used for some time in the Indian hospitals, as well as in private practice, with great success. As manufactured by Thomas Whiffen, an English manufacturing druggist, it is a fine, granular, non-adherent powder, of a pale buff color, which, dissolved in dilute sulphuric acid and water, is a clear brown liquid. Sulphate of quinetum is a white crystalline body, with a faint pink tinge, greatly resembling sulphate of quinia. It dissolves readily in dilute acids, and the solution exhibits a strongly marked fluorescence. It is said that the price of quinetum is about half that of quinia. The same firm are manufacturing a citrate of iron and quinetum.

Fossil and Vegetable Wax.

THE substitution of fossil and of vegetable wax, in place of the higher priced beeswax, assumes constantly increasing proportions. One factory alone, that of J. F. Otto, in Frankfurt on the Oder, produces upwards of 100,000 lbs. of *ceresin* annually. This is the name of the purified product obtained from ozokerite, an impure fossil wax, found chiefly near the large coal-beds of Drohobicz and Boryslaw in Galicia, upon the northern slope of the Carpathian mountains, also in Transylvania, and in the lowlands of Moldavia, at Gresten in Austria, near Newcastle in England, and in Texas. The crude substance, freed by fusing from the sand, clay and other earthy impurities, is of a deep-brown color with greenish tint, has a spec. gr. of 0.940–0.970, exhales a benzine-like odor, and in hardness, fracture and—when warm—pliability entirely resembles beeswax. It is very

combustible, with difficulty soluble in alcohol and ether, but easily soluble in oil of turpentine. It is purified and bleached by means of Nordhausen sulphuric acid (the manufacture of which has received a large impetus of late in consequence of the increased demand) and in its purest form is principally used as a substitute or adulterant for paraffin and wax, and is largely consumed by perfumers (for pomades), laundrymen, cloth-finishers and others. Considerable quantities are said to have been imported into this country, and some of our friends may no doubt have already made its acquaintance unknowingly. There can be no doubt that it is an excellent substitute for wax, even for pharmaceutical purposes, as it is reported to retard or entirely prevent rancidity in ointments, and it is well worth while to test its merits for such uses critically. When pure, its melting point is as high as 83°–84° C. (=181.4 to 183.2° F.), while wax melts at about 68° C. (155° F.), and it may therefore be used to increase the hardness of fatty or waxy substances melting at lower temperatures.

Vegetable wax is obtained from various plants, but the principal source of it is the wax-palm (Ceroxylon Andicola, Humb.), growing in the Andes of South America. Upon the rings left on the trunk and branches, after the leaves have fallen off, there appears an exudation of a wax-like substance which is called *carnauba*, and is collected by the natives. The annual crop collected in Brazil is estimated at 2,000,000 lbs., half of which, mixed with tallow, is used by the natives in the preparation of candles and tapers. When purified and bleached, it burns with a white and luminous flame, has a faintly aromatic odor and fuses at 75°–76° C. (=167°–168° F.).

Coto Bark.

About five pounds of this bark were forwarded to Dr. Wittstein by the house of Rudolph Martins, in Hamburg, with the following information: "This bark is from the so-called missions in the interior of Bolivia, whence also cinchona bark is obtained, and costs about the same price. It is recommended in the form of a powder or alcoholic extract for diarrhœa and colic, also for neuralgic toothache; externally as tincture, for rheumatism and gout." It occurs in pieces from two to three decimetres long, and from eight to fourteen millimetres in diameter. Externally it is reddish-yellow cinnamon brown, internally, darker. The very aromatic smell recalls cardamoms, camphor, and cinnamon. The taste also is aromatic and faintly bitter, but neither mucilaginous nor astringent.

Dr. Wittstein found in the bark (1) A volatile oil, pale-yellow, of a powerful aromatic odor, and biting, peppery aromatic taste, lighter than water. (2) A volatile alkaloid of a briny and urinous smell, resembling propylamine or trimethylamine. (3) A soft resin, yellow-brown, aromatic in odor, of a biting taste and a pitchy consistence, which it retains even after many weeks' exposure to the summer air; it is easily soluble in ether, chloroform, alcohol; difficultly soluble in benzol, scarcely soluble in carbon bisulphide. The solutions have an acid reaction. It dissolves freely in ammonia and the fixed alkalies, and is reprecipitated from such solution by acids; it forms about 14 per cent. of the bark. (4) A hard resin, dark-brown, brittle, inodorous, and tasteless, somewhat bitter in alcoholic solution; easily soluble in alcohol (the solution has an acid reaction), insoluble in ether, benzol, chloroform, carbon bisulphide; easily soluble in alkalies, and reprecipitated by acids. It forms about 10 per cent. of the bark. In addition to these, the bark contains starch, gum, sugar, oxalate of calcium, iron-greening tannin, formic, butyric, and acetic acids. Dr. Wittstein is of opinion that a tincture of the bark will be the best form of administering it—one part of the coarsely-powdered bark to nine parts of rectified spirit. A tincture of this strength was accordingly used by Prof. von Giek in seven cases of diarrhœa, and the powder in eight other cases. Ten drops of the tincture were given every two hours, and of the powder half a grain four or six times a day. From his observations, Dr. von Giek concludes that coto bark is a specific against diarrhœa in its various modifications.

No experiments are reported of attempts to prove the reputed efficacy of the bark in rheumatism or gout.—*Archiv der Pharmacie.*

Tuckahoe.

George W. Lawrence, M.D., writing to the *Medical and Surgical Reporter*, says: "In vol. xxxiii., No. 25, dated December 18, 1875, among 'Notes and Comments,' you publish an article on 'Tuckabo.' Permit me to make corrections, and give further particulars. The peculiar 'fungus' alluded to by Dr. Miller (*Lycoperdon solidum*) is an old acquaintance. '*Tuckahoe*' is the Indian name for it. Sometimes called 'Indian Bread,' 'Indian Loaf,' and 'Deer Bread.' Exteriorly, it has the rough physical appearance of a Guinea yam, and contains starch, cellulose, tannin, water, and perhaps some other extractive. It is found in all the Southern States, from Virginia to the Gulf coast, generally during the planting season, growing in rich alluvial soil below the surface. No vestiges of this 'fungus,' as an outgrowth, can be found, at any season, above the ground. It presents as true evidence of a spontaneous growth, from organic matter of the soil, as anything known that is found under the surface of the earth. It has long been used by the Indians, and by many inhabitants of the South, as a medicine, usually grated and boiled with fresh milk, like arrowroot, as a remedy for cholera infantum, diarrhœa and dysentery. Deer are very fond of it; it is alleged that they can scent it in the soil, and dig for it with their hoofs, for food; hence the name of 'Deer Bread.'" [This is a variety of truffle, the botanical name for which, according to Dunglison, is *Sclerotium giganteum*

We would like very much to compare it with the esculent truffle (*Lycoperdon tuber*) found in France and Italy, and will be much obliged to any one who can send us a fresh sample.]

A New Preparation of Ergot.

A VERY active preparation of ergot, which is particularly adapted for subcutaneous injection, is suggested by Dr. Wernich, of Berlin, who proposes to exhaust the drug with ether, strong alcohol, and finally with water. The infusion is then dialized through parchment paper, and the solution evaporated. This extract, after acidulation with sulphuric acid, was mostly soluble in alcohol, and when again carefully neutralized by soda, yielded all its active properties to weak alcohol.—*Apotheker Zeitung.—Amer. Journal of Pharmacy.*

The Alcohol in Ginger-Beer.

IT may perhaps startle many total abstainers to learn that one of their favorite beverages, ginger-beer, is really a fermented liquor, and contains alcohol in proportions varying from 2 to 4 or 5 per cent. Nevertheless, such, according to Dr. Bathurst Woodman, in the *Sanitary Record*, is the case. "I should be very sorry," writes that gentleman, "to diminish the sale of ginger-beer, which I regard as one of the best of our summer beverages, containing as it does, in almost all samples, either free citric or tartaric acid, or the almost equally beneficial bitartratc of potash. I have before me the receipts of several large makers, and take the first that comes to hand. It contains, besides ginger, tartaric and citric acids, 200 lbs. of sugar to 180 gallons of water. These ingredients are duly fermented, etc., and then bottled. Now, 200 lbs. of sugar (cane sugar) will produce in fermentation nearly 100 pints of alcohol; and, making all allowances for loss in yeast, by evaporation, in bottling, etc., it is quite plain that this liquor will contain about 4 per cent. of alcohol, and the result of actual experiment shows the same. The other receipts only differ slightly in the amount of the saccharine substance, as regards the water, or the kind of sugar present, or the acid employed. This percentage of alcohol is, of course, about half the strength of most of the malt liquors in common use by the middle classes of this country, but about equal to many of the cheaper ales, and to much of the beer drank in Germany and other parts of the Continent."—*Chemist and Druggist.*

Digitalin and its Acid.

M. TANRET, whose observations on digitalin published in the *Journal de Pharmacie* were supposed to have shown that this substance exists in digitalis in the form of the tannate, denies this to to have been his meaning, and now holds (*La France Médicale*, November 24, 1875) that digitalin is indeed a base, but that it combines in nature with some acid other than tannic, but as yet unknown.—*Philad. Med. Times.*

PHARMACY.

On a New Formation of Iodoform, and on the Action of Iodine upon White Precipitate.

ABOUT three months ago my attention was drawn by a friend to a peculiar reaction observed in preparing the following prescription:

℞ Tinct. iodinii..... ʒ ss.
Hydrarg. ammon..... gr. ij.
Ung. acidi carbol..... ʒ i.
M.

On incorporating the ingredients a *sudden* fading of color was observed, and the resulting ointment was entirely white. Now, although this is in part to be ascribed to the peculiar action of iodine upon white precipitate, which, according to the investigations of V. Schwarzenbach and others (*Wittstein's Viertelj.*, vols. xi. and xiii.), consists in the elimination of the amide-group, and the formation of mercuric (red) iodide and mercuric chloride (corrosive sublimate), yet in the present instance the change was so marked, and so much more rapid than we are accustomed to see, especially in presence of an indifferent diluent like lard, as to point to some other cause. In order to ascertain, if possible, the nature and products of the reaction, the various ingredients were alternately brought in contact with each other, and it was soon found that an alcoholic solution of iodine reacted in an entirely different manner with white precipitate, than dry iodine or a solution in any other menstruum. On placing some white precipitate into a capsule, and slowly rubbing it with tincture of iodine, a dingy-gray matter was seen forming at the bottom, which occasionally gave out a peculiar crackling sound, and small bubbles of gas were seen to rise through the liquid. As the color of the liquid was not observed to be much changed, and the substance at the bottom of the capsule was suspected to be iodide of nitrogen, I at once added a small quantity of carbolic acid—leaving out the lard—which immediately caused the quiet disappearance of the grayish deposit and produced a nearly colorless liquid, with a portion of undecomposed white precipitate as sediment. In order to further examine the difference in behavior of alcoholic solution of iodine towards white precipitate with and without the presence of carbolic acid, the following experiment was made: Two fluid ounces (59 cc.) of a weak tincture of iodine—15 grs. (0.98 gm.) in 1 fl ʒ (29.5 cc.)—were placed into a beaker (*α*), and a small paper filter, containing 20 grs. (1.29 gm.) of white precipitate and tied into a loose bag, was suspended in it. Another beaker (*β*) was treated in the same manner, with the addition of about 10 grs. (0.6 gm.) of carbolic acid. In the course of about thirty minutes the filter-bag in *α* burst with considerable violence, and a grayish substance was found deposited in the bottom of the beaker. On sha-

king this gently, a series of rapid crackling and faintly explosive sounds were heard, which increased in violence with the degree of shaking. Projecting the contents of the beaker upon the flagstones, outdoors, produced a considerable explosion in bulk, accompanied and followed by a great number of fainter separate snaps, as each particle of iodide of nitrogen reached the ground. The filter-bag contained in the other beaker (β) likewise burst, owing to the escape of gas, but without violence, and at no time could there be heard any of those crackling sounds. It was evident, therefore, that the presence of carbolic acid prevented the formation of iodide of nitrogen.

A second experiment was conducted in the following manner: The same amounts of white precipitate were placed into two beakers, and 30 grs. (1.96 gm.) of iodine in scales, and 2 fl ℥ (59 cc.) of alcohol were added to each. One beaker (α) was suspended by a cord tied below the rim in an out-of-the-way corner, and left to itself. To the other beaker (β) 20 grs. (1.2 gm.) of carbolic acid were added, and it was likewise placed on one side. In the course of about an hour the contents of the first beaker (α) exploded with a loud report, cutting off that portion of the beaker which had been in contact with the liquid, while the upper portion was left intact; this occurred every time the trial was repeated. The other beaker (β), however, even after standing for twenty-four hours, and frequent shaking, showed no signs of disturbance. There is a marked difference between the action of *alcoholic solution of iodine*, and *dry iodine in presence of alcohol*, upon white precipitate. In the former case, only as much iodine as is contained in the portion of the solution *in contact* with the white precipitate can form iodide of nitrogen, which is small in quantity and after explosion (which is not strong enough to shatter the vessel) merely causes a new layer of iodine solution to come in contact with the white precipitate. In the second case, however, the alcohol forms around each piece of iodine a very concentrated and dense layer of solution, which has not time to diffuse itself through the remainder of the liquid, but immediately reacts with the white precipitate, forming a much larger quantity of iodide of nitrogen at one and the same time, which by its simultaneous explosion—chiefly directed downwards, the air acting as a sort of anvil—shatters the lower part of the vessel.

In one experiment the gas bubbles, which were given off during the reaction, were carefully collected and found to be *nitrogen*.

During all preceding trials, made on a small scale, a very distinct iodoform-odor was observed in the finished product. New trials were therefore made on a somewhat larger scale, to ascertain the proper proportions of each ingredient, as well as the products of the reaction, among which iodoform had to be looked for. I soon found that it is advisable to add some carbolic acid (about 5 grs., or 0.3 gm. for every 120 grs. or 7.76 gm. iodine present) to the tincture of iodine before introducing any white precipitate, as in this manner all formation of dangerous by-products is prevented. Then small lumps of white precipitate (about 184 grs. or 11.9 gm. are required for 120 grs. or 7.76 gm. iodine) are added, which will give out a peculiar hissing sound and emit a quantity of gas bubbles (nitrogen). Trituration changes the color to muddy-brown or yellow, and finally the end of the reaction is brought about by the addition of more (about 40 grs., or 2.59 gm.) carbolic acid.

The resulting liquid is now filtered off from the undissolved residue, which is of a pure white color, the filter is washed with alcohol until a drop of the filtrate ceases to produce cloudiness when dropped into water, and the washings are added to the first filtrate (a). The residue remaining upon the filter, after being completely freed by continued washing with alcohol from all soluble matters, and after again being washed with water, was found to be unchanged white precipitate, which, by prolonged washing with water, was converted into the yellowish dimercurammonium chloride. The alcoholic filtrate (a) was added under constant stirring to about five times its own bulk of water, producing an abundant precipitate of a yellow color and of a strong iodoform-odor. The liquid filtered from this precipitate contained small quantities of mercuric iodide and chloride. The yellow precipitate was first thoroughly washed with water, then exhausted with ether, yielding an ethereal filtrate (b), and a residue free from iodoform odor. This residue was dried for twenty-four hours at a temperature of about 80° C., until it ceased to lose weight, and a portion thereof was analyzed. The mercury was determined as sulphide and the iodine was estimated volumetrically (by sodium hyposulphite), after being separated by Duflos' method. The figures obtained, however, did not agree with any of the known formulæ of iodides of mercury; the rest of the residue was therefore again dried at 100° C., which caused it to melt into a purplish brown mass, and a portion of it again subjected to analysis. The amount of iodine found in each case varied between 40 and 40.5 per cent., while the three known iodides of mercury contain respectively 38.6, 48.6, and 55.7 per cent. of iodine. We therefore have here, probably, a mixture of mercurous iodide (HgI) with mercuroso-mercuric iodide (Hg_2I_3), which supposition is strengthened by the reducing action which hydriodic acid and alkaline iodides exert upon the substance.

The ethereal filtrate (b), which contained the iodoform and mercuric iodide, was allowed to evaporate to dryness spontaneously, during which time magnificent ruby red crystals of mercuric iodide formed on the upper margin of the vessel. The residue was collected and shaken with a concentrated solution of potassium iodide, in order to remove the mercuric iodide. The undissolved portion was washed with water and weak alcohol, finally dissolved in ether, and the ethereal solution allowed to evaporate, when iodoform was left

behind, amounting in quantity to only about 2 per cent. of the iodine originally employed. Although this reaction is therefore too unprofitable in yield to be made use of in practice, yet it is interesting in a chemical point of view, owing to the peculiar part which the carbolic acid plays in decomposing, or preventing the formation of, iodide of nitrogen as produced from alcohol, iodine and white precipitate. Without alcohol the two latter produce no iodide of nitrogen, nor does a solution of iodine in carbolic acid, without alcohol, produce iodoform.

After having concluded the main portion of my experiments, my attention was drawn to a new paper, by V. Schwarzenbach, "On the Chemistry of the Metallic Salts containing the Amide Group," published in the *Berichte der Deutschen Chemischen Gesellschaft*, 1875, 1231, which gives some further details of the action of alcohol upon iodine and white precipitate, but does not mention the peculiar behavior with carbolic acid, as the author's attention was not directed to this substance by circumstances, such as induced me to investigate the subject nearly at the same time. In order to complete the subject, I will quote from his paper the following extracts: "Alcohol is the only liquid, which, under ordinary circumstances, can cause the production of iodide of nitrogen. Carbon bisulphide, propylic and amylic alcohols, chloroform, and glycerine were tried and found passive. However, on taking six atoms of iodine to two molecules of white precipitate, corresponding to the saturating capacity of all the constituents, and using either chloroform or amylic alcohol, strong snaps or detonations were heard in the liquid, without however at any time shattering the vessel. Gaseous *chlorine* acts likewise with violent energy upon white precipitate. On sprinkling some of the latter into a glass flask, filled with chlorine gas, the powder becomes very much heated in a short time, swells up, and either produces at once an explosion, or more commonly gives out a vivid green flame, which lasts a considerable time. *Bromine* produces similar results." (Bromine in the presence of alcohol, carbolic acid, and white precipitate produces bromoform, which may be separated finally by distillation from the accompanying bromides of mercury. Chlorine, under the same circumstances, probably produces chloroform, although I have not actually tried it; and it may perhaps be possible to produce fluoroform, if such a substance exists, by employing an appropriate apparatus.) "Other metallic salts containing the amide-group were found to act in a similar manner, although with much less violence."

CH. R.

New Reagent for Bile in Urine.

IN our abstract from the *Répertoire de Pharmacie*, on p. 13 of our January number, we mentioned a paper by M. Yvon: "Methylaniline Violet as a Reagent for Biliary Acids in Urine." It appears that this reagent is even more decisive and characteristic than those heretofore used. On adding a few drops of a solution of Paris violet, or methylaniline, to normal urine the latter becomes dichromatic: blue by reflected and violet by transmitted light. The presence of sugar or albumen has no influence upon the color. But bile (or biliary acids, according to Constantine Paul) immediately changes the color to red (about the same tint as blood), even when cold. The quantity of bile recognizable by this test is very small, and would escape detection by HNO_3 and its derivatives, and even by Pettenkofer's test. The only other substance which is known to produce the same color with the reagent is chrysophanic acid, which, according to Hardy and Gubler, may make its appearance in the urine a few hours after the administration of senna or rhubarb; it is therefore necessary to ascertain whether either of the latter remedies have been administered, before ascribing the change of color to bile.

Ergotinine; a New Alkaloid Discovered in Ergot.

IN a paper recently presented to the Académie des Sciences, through M. Berthelot, M. C. Fanret announces that he has discovered a new solid and fixed alkaloid in ergot. As the name ergotine has already been applied to several badly defined products, he has termed the new substance ergotinine. It is said to exist in ergot in very small proportion, and to be extremely alterable in the air, so that its extraction is a delicate and difficult operation. The method adopted by M. Fanret in the preparation of ergotinine is as follows:

Ergot reduced to fine powder is treated with two successive portions of boiling alcohol (86°), so as to obtain two parts of tincture for one of ergot. This is distilled in a water-bath. When the residue from distillation is cold, it consists of three parts: a fatty stratum on the top, liquid extractive matter, and resin which is deposited. The fatty matter is placed in a stoppered bottle, the liquor is filtered rapidly, and the resin is washed with ether. It is necessary that the ether used during the operation should be previously freed from alcohol by washing. The fatty matter and extractive liquid are treated separately for the removal of the alkaloid.

The fatty matter is dissolved in the ether which has previously been used to wash the resin, about 1 part by weight of ether to 4 parts of ergot being required. The solution is filtered and shaken with dilute sulphuric acid (1 in 15), which takes up the ergotinine; this treatment is repeated several times. Lastly, the aqueous solutions of the sulphate of the alkaloid are filtered, then washed with ether to remove traces of fatty matter still remaining, treated with excess of potassa, and shaken with chloroform. The liberated ergotinine is taken up by the chloroform, from which it may be obtained by evaporation sheltered from the air.

In treating the extractive liquor, it is distilled in an oil-bath in a current of hydrogen. When it is judged that all the alcohol it retained has passed

over, this first portion is rejected, a slight excess of carbonate of potassa is added to the remainder, and the distillation continued. The water next collected holds in solution methylamine, and another very odorous body. When the liquid in the retort has become so concentrated as to render "spirting" possible, warm water is added, and the distillation recommenced. If the distillate be shaken with chloroform, the chloroform becomes charged with the odorous body just referred to, which the author thinks is a volatile alkaloid resinifying very quickly in the air, but the small quantity at his disposal has not allowed him to clear up this point. The ergotinine remains in the syrupy residue from the distillation. This is acidulated, washed with ether, and after the addition of a slight excess of potassa, shaken with chloroform, which dissolves the alkaloid.

Ergotinine has a strongly alkaline reaction, and is capable of saturating acids. It gives precipitates with the double iodide of mercury and potassium, with iodine and iodide of potassium, phosphomolybdic acid, tannin, chloride of gold, chloride of platinum, and bromine water. It is soluble in alcohol, chloroform, and ether, and one particular character is the facility with which it is altered when exposed to the air.

The most characteristic reaction of ergotinine is the color that it takes with sulphuric acid of moderate concentration, which is first a yellow-red and then an intense blue-violet. After exposure to the air for a few minutes the reaction loses its sharpness, and is presently no longer produced. Saline solutions of the alkaloid become quickly rose-colored, and then red, under atmospheric influence.

M. Fanret has observed that when the extractive liquid is distilled with a concentrated solution of soda or potassa, only traces of the alkaloid are obtained, but a large quantity of methylamine is produced, doubtless through its decomposition. In another operation, where the liquor was evaporated slowly in the air and treated with potassa, only ammonia was obtained, the alkaloid having entirely disappeared. The great instability of this alkaloid explains, the author thinks, the rapid alteration of powdered ergot.—*Phar. Jour. and Trans.* from *Comptes Rendus*, vol. lxxxi., p. 896.

Preparation of Concentrated Formic Acid.

Lorin has shown (*Journ. Pract. Chem.*, 97, 168) that formic acid, containing 50% of the monohydrate, may be prepared in continuous operation by the decomposition of oxalic acid in presence of a polyatomic alcohol; in this manner he has since succeeded in preparing it as high as 75%, and has even reached 94% by using anhydrous oxalic acid in contact with already concentrated formic acid. In a large tubulated retort, colorless glycerine and powdered anhydrous oxalic acid are heated on a water-bath. Decomposition begins at 80° C., and becomes more rapid at 87°, when the whole liquid begins to be covered with a white foam. As soon as the reaction slackens, new oxalic acid is added, without previously distilling off the formic acid produced. The temperature must not be carried over 100° C. Finally the contents of the retort are distilled, and yield a colorless formic acid, free from allyl-products, of about 94%. This needs no further treatment for dehydration. Instead of glycerine, other substances may be used, such as mannite, erythrite, and glycol (in the latter case a high degree of heat is produced). The function of the polyatomic alcohol when heated in contact with oxalic acid seems to be similar to that of sulphuric acid upon monatomic alcohols, that is, not to undergo decomposition itself, but merely to act as the determining and regulating medium for the reaction. In the first case, however, it is the acid (oxalic) which is decomposed, while the polyatomic alcohol (glycerine) remains unchanged; while in the other case (sulphuric acid, and a monatomic alcohol) the alcohol suffers decomposition, and the acid remains unchanged.—*Comptes Rendus*, vol. lxxx., p. 1328.

Separation of Paraffin and Wax.

On page 38 we draw attention to the fact that white wax is at present most commonly adulterated by the admixture of paraffin, or the cheaper ceresin. It is therefore desirable to know a good practical method for separating these bodies. Among the many processes proposed, Hager's will be found the easiest of application, besides giving reliable results. It is as follows: 2 gm. (31 grs.) of the sample are melted in a test tube, mixed with a solution of about 1.5 gm. (24 grs.) of fused potassium hydrate in 5 to 6 gm. (80 to 90 grs.) water, and gently heated to boiling for one or one and a half minutes, under constant shaking. By care, a uniform, although not entirely clear mixture may be produced. As soon as it has cooled to near the solidifying point of the wax, petroleum ether is added in very small portions, under shaking, until 6 to 8 gm. (90 to 120 grs.) have been used, and the contents of the test-tube, which is tightly closed, are strongly agitated. This produces an emulsion, from which it requires some time for the petroleum ether to separate. In order to hasten the solution, and at the same time to precipitate any accompanying fatty acids, aqueous solution of acetate of lead is added, which is mixed with the contents of the tube either by shaking or by means of a glass rod, according as the consistence of the mixture requires it. After addition of the acetate of lead solution, the mixture will usually change its color from yellowish-brown to white. Excess of acetate of lead is not injurious. The petroleum ether, containing a part of the paraffin in solution, will now separate without difficulty, by allowing the tube to stand until the solid matter has aggregated at the bottom; it is then poured through a small funnel, the exit-tube of which has been closed with a loose pellet of cotton, into a small flask or tared beaker, or a tared, deep Berlin crucible. The residue is

treated by new portions of petroleum ether, until a drop of the latter does not leave a permanent greasy stain upon blotting paper. The united solutions are allowed to evaporate in a moderately warm place, finally upon the water-bath. If a flask is used, the petroleum ether may be distilled off. Flat capsules are inadmissible, because solutions of fatty substances in benzine or petroleum ether are very apt to allow the deposited matters to creep over the margin of the vessel, thus causing loss. 100 parts of pure wax yield to petroleum ether 14 to 16 (average 15) parts of soluble matters. Any excess over this percentage is paraffin.* If desired, the latter may be purified by decomposing the wax accompanying the paraffin by cautious heating with concentrated sulphuric acid; but this operation is generally attended with loss.

Strong Solution of Salicylic Acid.

VARIOUS solvents for this substance have from time to time been proposed, such as phosphate of soda, phosphate of ammonia, and borax. But none of these yield a very strong solution. The demand for such a solution (aqueous) having arisen, we were compelled to search for another substance—neutral, and itself not irritating—which might take up a large quantity. We finally succeeded by the use of acetate of lime. Proceed as follows: Introduce 3.1 decigr. (℥ i.) of salicylic acid into a half-pint bottle, add about 12.4 decigr. (℥ iv.) of water, and shake well until the salicylic acid has been thoroughly incorporated with the water. Then add 3.1 decil. (fl ℥ i.) of glycerine, and finally enough water to make up the bulk to Oss. Immerse the bottle up to the neck in boiling water, and remove it from time to time to agitate the contents. In the course of about fifteen minutes solution will have taken place, which remains permanent on cooling. In order to prevent water from being spattered into the bottle from the outside, we are in the habit of slipping a perforated rubber nipple over the neck, which allows the vapor from inside to escape, and the orifice of which is too small to allow access of any liquid from without. CH. R.

New Method for the Estimation of Uric Acid.

THE usual method of separating uric acid by hydrochloric acid being sometimes inapplicable, and not sufficiently exact, A. P. Fokker was induced to devise a new one, based upon the insolubility of acid urate of ammonia. It is itself not entirely free from error, but in all cases separates more uric acid than the old one. His process is the following: 100 cc. of urine are rendered strongly alkaline by sodium carbonate. After four to six hours the earthy phosphates are filtered off and washed with hot water. Filtrate and wash-water are then mixed with 10 cc. of saturated solution of ammonium chloride, and left without stirring. After from six to twelve hours, the liquid and the precipitate are removed to a small filter, which has been previously washed with $\frac{1}{10}$ hydrochloric acid and weighed. When the fluid has run off, the tube of the funnel is fixed into the neck of a bottle by means of a tightly fitting cork. The filter is now filled up to within half a centimetre of its edge with $\frac{1}{10}$ hydrochloric acid, and left to stand some hours. The funnel is then removed from the cork, the fluid allowed to run off, and the sediment washed till it loses its acid reaction, then dried and weighed. According to the author, the previous separation of albumen may be dispensed with. A correction is, however, required, which consists in the addition of sixteen milligrammes (0.016 gm.) to the amount found for every 100 cc. of urine. The author finds that uric acid, when impure, is quite as soluble as when pure. By this method it is, of course, the impure colored uric acid which is estimated.—*J. Chem. Soc.*, from *Pflüger's Archiv f. Phys.*, vol. x., p. 153.

Pencils of Nitrate of Zinc.

PENCILS and cones of nitrate of zinc, which have come into use of late for cauterizing purposes, may be made as follows: Dissolve good commercial zinc (Lehigh) in nitric acid (sp. gr. 1.200), until the latter is saturated; separate the solution from the undissolved zinc, and while still warm, add one part of precipitated carbonate of zinc for every thirty-two parts of zinc in solution. The carbonic acid of the carbonate of zinc is transferred to the iron, which contaminates the commercial zinc and is present as ferric nitrate, and an additional quantity of nitrate of zinc is formed; the heat, however, causes the decomposition of the ferric carbonate, the carbonic acid escapes, and ferric oxide together with the excess of carbonate of zinc is deposited. Filter the solution, which must be considerably diluted with water to prevent it from tearing the filter, and evaporate it on a sand-bath until it appears as a quiet, fused mass, but yet liquid. Should the evaporation have been conducted too far, which is indicated by the escape of yellowish fumes, the vessel should be removed from the fire, allowed to cool, and a quantity of very dilute nitric acid added, after which it is again to be evaporated to the proper point. This fused liquid, which must not be so hot as to ignite paper on which a few drops have been allowed to fall, is poured into paper moulds about four inches in length, made by rolling paper around glass rods or lead pencils, pasting the edge and closing the bottom. No oil or fat of any kind must be used, as the paper will invariably take fire in this case. When the sticks are hard they are inclosed in glass tubes, and the latter well corked. For use, a small quantity of the paper is removed from one end by means of a knife, and, if desired, the end of the pencil may be pointed. CH. R.

* The melting-point of the substance will give indications of the presence of fats; methods of separating fat from paraffin and wax will be given at another time.

On the Estimation and Solubility of Caffein.

THE following process is given by A. Commaille, for determining the quantity of caffein in coffee: 5 gm. (77 grs.) powdered coffee are intimately mixed with 1 gm. calcined magnesia, and after 24 hours the mass is dried upon the water-bath. The green powdered mass is exhausted by treatment with boiling chloroform (100 gm. = 1543 grs. are sufficient), which dissolves caffein and fat. The chloroform is distilled off, 10 gm. (154 grs.) of powdered glass and some water are added to the residue in the flask, and the contents raised to boiling. The mass is filtered and the residue treated twice more with boiling water. The aqueous solutions leave after evaporation pure crystallized caffein. The same author has determined the solubility of caffein, and found the following numbers:

Solvents.	100 gm. of the solvent dissolve — pts. of caffein.		1 part of caffein is soluble in — pts. of the solvent.	
	hydr.	anhydr.	hydr.	anhydr.
Water at 16° C.....	1.47	1.35	68.	74.2
" at 65°.....	49.73	45.55	0.5	2.19
Alcohol (85%) at 16°.....	2.51	2.30	40.	44.4
" absol. at 16°...	—	0.61	—	164.7
" " boiling....	—	3.12	—	32.
Ether, pure, at 16°.....	—	0.0437	—	2288.
" boiling	—	0.36	—	277.
Chloroform at 16°.....	—	12.97	—	7.72
" boiling.....	—	19.02	—	5.52
Petrol. ether at 16°.....	—	0.025	—	4000.
Carbon bisulph. at 16°...	—	0 0585	—	1709.

Chemical and Pharmaceutical Incompatibles.

THE following are some of the most striking examples of pharmaceutical and chemical incompatibles, as given by Dr. Handsel Griffiths in his work noticed by us in our last number:

Compound infusion of cinchona with compound infusion of gentian.

Infusions generally with metallic salts.

Tinctures made with strong alcohol, with those made with weak alcohol, and with infusions and aqueous liquids.

Essential oils with aqueous liquids, exceeding one drop to f ℥ i.

Fixed oils and copaiba with aqueous liquids, except with excipients [or emulsifying agents].

1. Two salts in solution may form, by the interchange of their acids and bases, two insoluble salts which are precipitated.

2. When two salts in solution form, by the interchange of their acids and bases, a soluble and an insoluble salt, the latter will generally be precipitated (ex., chloride of barium and sulphate of sodium), [a better example, which is often prescribed, would be: sulphate of zinc and acetate of lead. This of course throws down sulphate of lead], or may form, with the soluble salt, a double salt [as iodide of potassium and bichloride of mercury].

3. When two salts in solution do not give rise to an insoluble salt, no precipitate will result, though there may be decomposition.

4. An acid will decompose a salt—

(*a*) If the acid added be more fixed, or more soluble than that of the salt.

(*b*) If the acid added can form an insoluble or a less soluble compound with the base of the salt.

(*c*) If the acid added possess a greater affinity for the base of the salt.

(*d*) If the acid of the salt be gaseous,

5. Alkalies decompose salts of the metals proper and of the alkaloids, and precipitate their bases, or the base may be soluble in excess of the alkali.

6. Metallic oxides combine with acids to form salts.

7. Vegetable substances containing tannic or gallic acids precipitate albumen, vegetable alkaloids, and most of the metallic oxides, and form, with salts of iron, inky solutions. Substances containing tannic acid also precipitate gelatine.

8. Glucosides [as digitaline, solanine, etc.] are incompatible with free acids especially when hot, or emulsions.

As a general rule, the following substances should be prescribed alone, and are best given in simple solution:

Acid. hydrocyanic. dil.	Potassii bromid.
Acid. nitro-hydrochlor. dil.	Potassii iodid.
Antim. et pot. tart.	Potassii permanganas.
Liq. calcis.	Potassi acetas.
Liq. potassæ.	Zinci acetas.
Liq. potassii arsenitis.	Morphiæ acetas.
Liq. ferri pernit.	Morphiæ hydrochlor.
Tinct. ferri chlor.	Quiniæ sulphas.
Tinct. iodinii.	[Argenti nitras.]

The following instances of individual incompatibility are mentioned:

Acid. Hydrocyanic. Dil.—This is not unfrequently prescribed with alkalies; a cyanide of the metal is thus formed, which is, however, not less active than the acid itself.

Acid. Phosph. Dil. may be prescribed with syrup of the phosphate of iron; if, however, it be combined with syrup of *pyrophosphate* of iron, the mixture becomes solid.

Acid. Sulph. Dil.—The substances with which this acid is incompatible can be inferred from the foregoing rules. There is one combination, however, to which Dr. Griffith directs attention, viz.: the insoluble sulphate of lead, which results from its use with any of the lead salts.

Acid. Tannic. may be prescribed with the protosalts of iron, but not with the per-salts. Galls and gallic and tannic acid are said to be incompatible with infusions and decoctions containing alkaloids, but tannates of alkaloids are by no means inert; tannate of morphia will induce sleep, and tannate of emetia will cause vomiting.

Acid. Tartaric.—This acid was formerly much used in making saline draughts. Now if bicarbonate of potassium be added to a solution of tartaric acid, bitartrate of potassium is thus formed, and at once precipitated; but if the tartaric acid

be added to the potassium salt, no such untoward circumstance will occur.

Alum is incompatible with alkalies and their carbonates; with tannic acid and preparations containing it; with tartrates, salts of lead, lime, and baryta, etc.

Antim. et Pot. Tart.—Acids, alkalies, and their carbonates, and some earthy and metallic preparations cause precipitates with tartar emetic, but these precipitates are soluble in excess of caustic alkalies. If tartar emetic be combined with astringent vegetable infusions an insoluble tannate of antimony will result. I may here mention that tartar emetic is often, and with perfect propriety, prescribed with sulphate of magnesia.

Argenti Nitras.—It is almost unnecessary to say, that this salt should not be dissolved in undistilled water or in vegetable infusions.

Argenti Oxidum.—This substance is incompatible with many organic substances. On account of its influence on the mucous membrane of the stomach, it might possibly occur to a practitioner that it would be a valuable addition to creosote in special cases of vomiting. The result of such a combination would be spontaneous combustion. [Explosions frequently occur by mixing silver oxide or nitrate with excipients containing sugar.]

Ferri et Ammoniæ Citras.—This salt is sometimes prescribed in effervescence. In such a case the iron salt must be put into the citric-acid solution, and not into that of the bicarbonate of potash; if the latter course were adopted, carbonic acid would be given off, with the probable effect of bursting the bottle. This salt is often prescribed with tincture of orange [peel] alone; it will be well to remember that unless *some* water be added, it will be insoluble in this menstruum.

Ferri et Pot. Tartr. may be prescribed with alkaline carbonates.

Hydrargyri Perchloridum [corrosive sublimate] is incompatible with vegetable preparations containing albumen or tannin. It is precipitated by alkalies, alkaline sulphurets, iodides, tartar emetic, etc.; in fact, there is hardly anything with which it is advisable to combine corrosive sublimate, except chloride of ammonium, which increases its solubility, and decoction of sarsaparilla.

Hydrargyri Subchloridum [calomel].—Care should be taken not to order calomel in combination with any preparation containing a trace of prussic acid. Innocuous as calomel itself is, comparatively speaking, it is converted by prussic acid into bichloride and bicyanide of mercury, two virulent poisons. [It should not be given in mixtures containing other salts, as chlorides, carbonates, etc.]

Plumbi Acetas is incompatible with nearly everything except distilled water. It may be given in combination with opium. If common water be added to liquor plumbi subacetatis, carbonate of lead will be thrown down.

Potassii Iodidum should not be prescribed with sweet spirits of nitre, acid preparations, or those containing starch. In fact, iodine and iodides should be prescribed with as few additions as possible. Iodide of potassium decomposes nearly all metallic salts.

Calumba.—When we desire to combine salts of iron with a vegetable tonic, calumba may be chosen, as it contains no tannic or gallic acid. [The same is true of quassia and gentian.]

Camphora forms soft masses with gum resins. It destroys the odor of musk. [It should not be given in substance, as it is apt to cake in the stomach and produce ulcerations.]

Caryophyllum.—Cloves contain tannin, and hence should not be prescribed with iron salts.

Tinct. Cascarillæ.—This preparation is not infrequently prescribed with dilute mineral acids; the combination is, however, objectionable, as floccules soon float through the mixture. If it is desirable to combine an acid with cascarilla, the infusion of that drug should be selected.

Tinct. Cannabis Indicæ.—If this or other spirituous solutions of resinous substances be added to water, the resin will be precipitated.

Tinct. Guaiaci.—The addition of nitric ether to this preparation causes the formation of an unsightly bluish-green mass.

Chloroform will not remain mixed with weak spirits or with glycerine. [The latter, however, by proper manipulation, and especially by the intervention of alcohol, may be made to dissolve considerable quantities of it.]

Belladonna, Hyoscyamus, and *Stramonium.*—It has long been known that caustic fixed alkalies decompose the alkaloids of these agents. Runge demonstrated the fact long ago. Carbonates and bicarbonates of the alkalies may be prescribed with preparations of these drugs.

Opium.—The older text-books contained a long list of substances which were supposed to be incompatible with opium; most of these are not now considered as improper combinations. Tincture of opium is not infrequently prescribed with acetate of lead; a decomposition takes place, resulting in the formation of acetate of morphia and insoluble meconate of lead.

Quiniæ Sulphas is often prescribed in combination with infusion of roses, and a turbid and unsightly mixture results.

Determination of Alcohol in Wines.

AMONG the many methods recommended to determine the quantity of alcohol contained in wines or other liquids, which contain no other volatile matters excepting alcohol and water (as, for instance, in many pharmaceutical tinctures), the easiest and most convenient is Tabarie's, which has been known for a number of years, but is not generally met with in text-books. In the September number of the *American Chemist* the process is mentioned in an article by Mr. Merrick, but the formula given, as well as the use of the word "percentage" without qualification, are apt to lead to mistakes. We therefore reproduce it here in a modified form:

Take the specific gravity of the liquid (at 15.5° C.); evaporate it to one-fourth of its bulk; make up the loss by the addition of distilled water, and take the specific gravity again at the same temperature. Then by subtracting from the original specific gravity (D) the difference between the new specific gravity (D′) and that of distilled water (=1,000), we obtain the specific gravity of the alcohol + water contained in the liquid:

D−(D′−1,000)=sp. gr. of alcohol + water in wine.

The percentage of alcohol is ascertained from the usual alcohometric tables. The formula may also be stated thus:

1,000−(D′−D)=sp. gr. of alcohol + water.

RECENT PAPERS.

Répertoire de Pharmacie, No. 22.—M. SIDOT. "Researches on Carbon Monosulphide."—M. A. COMMAILLE. "Quantitative Estimation of Caffein and its Solubility." See above, page 45.—CONSTANTINE PAUL. "The Antidotes for Strychnia."—**Ibid.** No. 23.—M. BERQUIER. "Recovery of Balsam of Tolu used in Preparing the Sirup, and its Re-employment." [The author proposes to digest the sirup with the balsam in a closed vessel, to filter cold, and to collect the residue carefully for another operation; which may be repeated three or four times before the balsam appears exhausted.]—PORTES and RUYSSEN. "On the Methods of Recognizing Common Alcohol and Wood-spirit in Mixtures."—S. COTTON. "New Reaction of Phenol: Sulphocarbolate of Quinia, and Carbolated Sulphate of Quinia." [To an alcoholic solution of sulphate of quinia of known strength add, drop by drop, an alcoholic solution of phenol. From time to time place a small drop of the mixture upon a drop of ammonia-water on a porcelain plate. Add a little sodium hypobromite, and as soon as the sulphate of quinia is saturated with phenol, the slightest excess of the latter produces a characteristic blue color; this test may, perhaps, be used for quantitative analysis.]

Journal of the Chemical Society, Nov.—A. W. HOFMANN. "The Faraday Lecture." The life work of Liebig in experimental and philosophic chemistry, with allusions to his influence on the development of the collateral sciences and of the useful arts.

Ibid, Dec.—J. W. MALLET. "On Certain Reactions of Tungsten."

American Journal of Pharmacy, Jan.—TH. G. WORMLEY, M.D. "The Alkaloids of Veratrum Viride and Album; History, Preparation, and Recovery."—F. HOFFMAN. "The Relations of Pharmacists to Physicians and Nostrums."—E. S. WAYNE. "Researches upon Buchu." [The author reports having obtained, during the recovery of alcohol by distillation from buchu, an oil which yielded, by treatment with caustic soda, separation of the clear solution, and decomposition by HCl, a substance resembling salicylic acid in all respects. Although unsuccessful in finding the same body since, he has separated a crystalline body from buchu which may throw some light upon the subject.]—H. S. WELLCOME. "On Solutions of Molybdic in Sulphuric Acid as a Reagent for Organic Principles." [The author declares Dr. Southey's method of detecting alkaloids by the above reagent to be unreliable and valueless.]—E. S. WAYNE. "Laboratory Notes on Damiana" [Presence therein of considerable quantities of potassium chloride], and on Eucalyptus globulus [Separation of a peculiar crystallizable acid resin, yielding a brown-red reaction with ferric chloride].—CH. L. MITCHELL. "Aloin."—WM. MCINTYRE. "Wafer Capsules as a Means of Administration of Medicines."—O. EBERBACH. "Vinegar Bitters." [Composition: Cape aloes, Glauber's salt, gum arabic, gum guaiac, acetic acid, carbonic acid, *alcohol* and oil of anise.]

Pharm. Journal and Trans., Nov.—N. T. CARRINGTON. "Note on the Chemical Formula of Commercial Molybdate of Ammonium." [Found to be NH_4HMoO_4, or acid molybdate of ammonium. The neutral salt is not crystallizable.]—WM. CURRAN. "Excrementitious (East-) Indian Medicine."—J. E. DE VRIJ. "East India Cinchona Bark." [The author incidentally mentions that 1 part of red bark percolated with water until 8 parts of clear liquid have been obtained yields ⅘ of all its alkaloids, and the chief part of its quino-tannic acid, to the menstruum.]—H. GROVES. "Acqua di Capodieci." [A hemostatic water named after the discoverer, Dr. Simon Capodieci, of Naples, which has been reported by an Italian Government commission of experts to be superior to all other known hemostatics.]—F. FLÜCKIGER. "Note on Hing, of the Bombay Market, the so-called Nauseous Asafœtida."

Chemist and Druggist, Dec.—"The Betel Nut."—"Manufacture of Fireworks."—"Analysis of the 'Explosives Act of 1875: 38 Vict. c. 17.'"—"The Registration of Trade Marks."

THERAPEUTICS.

Hypnotic Properties of Lactate of Soda.

W. PREYER, of Jena, in a communication to the *Centralblatt für die Medicinischen Wissenschaften* for August 7th, states that numerous experiments and observations have shown him that a feeling of weariness and sleepiness, and even a condition very closely resembling or identical with natural sleep, is produced when a concentrated watery solution of lactate of soda is injected subcutaneously, or introduced in large quantity into the empty stomach, provided that strong irritation of the senses be avoided. In many cases also sleep was produced when the lactate of soda was not given as such, but the materials were afforded for its abundant formation in the digestive canal, as after drinking highly concentrated solutions of sugar, and after the abundant use of fresh, and especially of sour milk, and of sour or sweet whey. There were great differences in regard to the time, duration, and intensity of the sleep. It appeared to occur more readily in young than in old animals; in animals having high, than in those having low reflex excitability; more readily in mice, cats, pigeons, and frogs than in rabbits and guinea-pigs; more readily in small than in large animals, and in a low temperature than in a high one. In man, also, considerable individual differences were observed. While one would be seized with almost uncontrollable drowsiness soon after the use of a quart of coagulated milk or a glass of highly concentrated solution of sugar, or after taking into the empty stomach

a solution of 12 grammes (three drachms) of lactate of soda in 120 grammes of water, this effect was not produced in another. In order to obtain data for an investigation of the causes of this varying action, Preyer invites practitioners in cases where it has hitherto been the practice to procure sleep by means of opium or chloral, to inject, subcutaneously, concentrated solutions of lactate of soda, or to give as drink large quantities of solution of sugar, or milk-serum, or condensed milk, and to communicate the result, either in published papers or by letter. He remarks, also, that the lactate of soda deserves investigation as an antipyretic, and also as a calmative in mania and in certain forms of convulsive disease, on account of its property of speedily inducing weariness during muscular action. In all cases where sleep was produced by lactate of soda, Preyer found the respiration deepened and reduced in frequency, the reflex irritability diminished, and, in warm-blooded animals, the temperature lowered, especially when large doses were given. Larger doses of the lactate than were necessary to produce sleep were borne without the least injury. The sleep produced cannot be distinguished from natural sleep. When the animals awake, they do so in the natural way, become lively in a few moments, readily take food and drink, and, if left to themselves, readily fall asleep again, to awake quite lively. Lactates of potash, magnesia, and lime cannot be recommended as substitutes for lactate of soda.

Discoloration Produced by the Oxide of Silver.

In the *Philadelphia Medical Times*, Prof. H. C. Wood refers to the opinion expressed in his work on therapeutics, that the reason no case of discoloration has hitherto been observed from the use of the oxide of silver, is not that it is not capable of producing such pigmentation, but that it has been so seldom exhibited in sufficient quantity. His remark has elicited a letter from Dr. B. A. Clements of the U. S. Army, who reports a case in which half-grain (3 centigr.) doses, three times daily, for chronic diarrhœa, was exhibited, with an intermission of two weeks in November, from October 23 to December 18, 1874, thus taking, in all, sixty-three grains (4.07 grammes), in forty-two days. At the last-mentioned date it was noted that there was a dark, nearly black line near the teeth on the gums of both jaws, especially the lower, and that a bluish discoloration extended to the entire mucous membrane of the gums and lower lip. The general condition was much improved.

Nitrite of Amyl in Hiccough.

Dr. Simon, of Chicago, reports in the *Chicago Medical Jour. and Exam.*, that a patient who had hiccoughed for twenty-six hours, and been subjected to various treatments without success, was relieved almost instantaneously by inhaling three drops of the amyl nitrite.

Poisoning by Carbolic Acid—Recovery.

A case is reported in the *Medical Times and Gazette* of a woman in Liverpool, forty years of age, who had swallowed nearly a teacupful of crude carbolic acid. She was seen by Mr. E. S. Wood about twenty minutes after she had taken the dose. He immediately used the stomach pump, and washed out the stomach several times with tepid water. He then injected a pint of olive oil into the stomach, and applied mustard poultices to the legs and the precordial region. She was removed to the Northern Hospital, and after about a month's treatment with milk, barley water, lime water and ice, she ultimately recovered.

Opium Treatment of Diabetes.

The treatment of diabetes with opiates, introduced by McGregor, in 1837, has yielded different results in the hand of different physicians. A writer in the *Chicago Medical Journal* strongly asserts that opium, or morphine rather, exerts a direct influence upon the excretion of sugar, diminishing its quantity or making it disappear entirely. But large doses must be given, and to the administration of too small doses does he attribute the ill success of other practitioners.

He bases these assertions on the clinical observations of fourteen cases, in which satisfactory results were obtained by the employment of large doses of morphine. "In most of the cases the disease had lasted a long while, and visibly influenced the nutrition of the patient. None of the patients were put on an absolute animal diet, but always a small amount of bread was allowed. In all cases a decrease in the quantity of sugar in the urine ensued, sooner or later, upon the administration of morphine, and if the dose was gradually increased, the excretion of sugar ceased temporarily. At the same time the excess of urine decreased, the thirst subsided, and the nutrition of the patient improved. With the most patients, it is true, this improvement lasted only as long as morphine was given; in one case, however, no sugar could be found in the urine eighteen months after the treatment had been stopped. The doses of morphine were gradually increased to as much as three grains daily until the urine did not contain any sugar; were then discontinued, to be given again when the sugar re-appeared to the amount of two or three per cent., or moderate doses of morphine were continued, to keep the excretion of sugar below two per cent." The remedy is very well tolerated by such patients, and its narcotic influence does not appear until very late, but it causes an obstinate constipation, which, however, can be counteracted from time to time, by an enema or the use of rhubarb, or aloe.

This writer does not feel prepared to assert that this treatment can cure every case of diabetes, but he thinks it may always lengthen the life of the patient.

Atropia in Opium Poisoning.

R. G. WHARTON, M.D., reports the following case in the *Phila. Med. Times:* "I was sent for in haste, April 20, 1875, at 8 P.M., to see a gentleman 60 years of age, who was said to be dying. On my arrival in a few minutes, I found him in a profound stupor, from which he could not be aroused, the respirations from four to six in a minute, skin hot, and sweating profusely, pulse 66, very strong and full. On examination, the pupils were found to be contracted to a fine point; the eyes were rolled up, and immovable. I suspected opium-poisoning, and, on inquiry, learned that he had been suffering for some time with neuralgia, and had taken morphia to relieve himself. He had procured some in the morning, and remarked to a friend that he would take three grains at a dose. He appeared to be in imminent danger of death. From what I could learn, he had been in this condition of insensibility, getting worse, for more than one hour, perhaps much longer, as he was alone when first seen by his friends, an hour before. I immediately injected hypodermically one-thirtieth of a grain of atropia, which I had with me, applied cold water freely to the face, which was quite livid, and awaited anxiously the result. Seeing no improvement in his breathing ten or twelve minutes afterwards, I again injected a like amount of atropia, continuing the cold applications to the face and neck. In about eight or ten minutes after this second dose the effects were surprising. All of a sudden, after some evident and decided improvement in his breathing, which went up from four to six per minute to eight or nine, he opened his eyes, looked around in a bewildered manner, and sat up in bed; talked in a delirious way; said he felt well.

"I remained with him half an hour, and left directions to be sent for if necessary. In a short time I was summoned again. He had relapsed into a stupor; the pulse was sixty, not so strong or full as before, but of sufficient strength; respirations ten to twelve per minute. With cold applications alone I aroused him without much difficulty. He now appeared to be very much excited, talked incessantly, and continued in this excited state all night till 5.30 A.M., when he fell asleep, and slept till half-past nine A.M. On waking, he seemed quite relieved, only very much excited during the whole day. After the operation of a purgative, however, he was entirely relieved, but felt weak for a day or two."

Action of Bromide of Lithium.

DR. ROUBAUD writes in the *Revue de Thérapeutique* as follows of this drug: "1. Bromide of lithium is a drug which has a two-fold action. 2. It possesses in a high degree the lithontriptic qualities which are universally recognized in the salts of lithia. 3. It affects reflex sensibility in a more energetic manner than the other bromides, without the unpleasant effects on the heart which the bromide of potassium has. 4. Consequently it takes its place in the first rank of antilithic and sedative drugs, and its action is especially valuable in cases of the uric-acid diathesis which are accompanied by painful phenomena."

Action of Aconite.

FROM an elaborate series of observations in *St. Thomas' Hospital Reports*, New Series, vol. v., Dr. John Harley reports conclusions which indicate that, if it be conceded that aconite ameliorates the febrile condition, it does not much control it; and that it cannot in any degree anticipate or cut short the pyrexial stage in a disease (relapsing fever), against which, if it did possess the febrifuge properties ascribed to it, its influence ought to be most marked.

A "Certain" Cure for Rheumatism.

JUDGING from his article in the *Wiener Medizinische Presse*, Dr. Franz Heller is an enthusiast in the administration of caustic ammonia in rheumatism. For several years he had been a sufferer from severe muscular rheumatism in the right shoulder; he had taken all the common anti-rheumatic remedies with but little alleviation, when he began to reason that in rheumatism, as in gout, there may be a uric acid diathesis; he thought that liquor ammoniæ, on account of its rapid volatilization, would be the remedy most readily absorbed, and the most prompt in action. In almost the same moment, in which he took one drop, diluted with water, he felt a complete relief from the pain which had lasted for ten hours; he was now able to move freely the arm which, an instant before, he could scarcely bear to have touched. The remedy, he claims, has proved a positive cure in all recent cases of muscular rheumatism which have fallen under his observation; he cites numerous cases in which relief, as instantaneous as his own, was experienced.

He also observed its effects in several cases of acute articular rheumatism, in two of which six drops sufficed to subdue the pain and swelling within a period of twenty-four hours.

In one case of chronic rheumatism of a finger joint, which had lasted for over half a year, the simple administration of the ammonia completely dispelled the inflammation and pain in the joint within two days.

He then discusses the mode of action of his remedy. "If we consider an excessive acidity as the cause of the rheumatism, we can scarcely claim in the cases in which one drop will instantaneously relieve the pain in recent rheumatism, that one drop was sufficient to counteract the effects of the excess of uric or (according to Fuller) lactic acid.

"Nothing remains therefore but for us to seek for the source of rheumatism in a morbid nervous activity induced by disturbances of nutrition, and to believe that the ammonia acts as a nervine directly upon the nerves."

After the cure of one attack of rheumatism, our object should be to put the patient in such a condition as to prevent their recurrence. This, the writer thinks, can be done by building up the general system, and thus diminishing the nervous excitability.—*The Clinic.*

Propylamia in Acute Rheumatism.

DR. LEE has treated twenty-eight cases of acute rheumatism with a solution of one gramme of propylamia and ten of sugar in one hundred and twenty grammes of peppermint-water, of which a tablespoonful was given every two hours; altogether from three to five grammes were so taken by each patient, whose limbs were bandaged with cotton-wool and cardboard. All the twenty-eight cases suffered from multiple joint-affections; in fourteen cases the disease disappeared without returning; in the other fourteen it was recurrent once or repeatedly. Five cases were complicated with slight, five with severe affection of the heart, one with acute œdema of lungs, and one with diphtheria. All were restored to perfect health and military duty except one. The average duration of the illness in these cases was 17.7 days per head; none was discharged before full recovery was proved by increased weight of body and gymnastic exercises. The effect of propylamia is summed up as follows: 1. The disease becomes very soon subacute, and remains so to the last. 2. The sedative effect on the nervous system is shown by decreased tension in the circulatory apparatus; pulse and respiration become slower, and high fever decreases within thirty-six hours. 3. With at first profuse, then more gentle perspiration, pain decreases very markedly. 4. The color of the skin acquires a peculiar grayish tint.(?) 5. Sleep quickly returns, and is not interrupted by pain. 6. With a cleaner tongue appetite returns fast. 7. The quantity of urine is not much increased; it is mostly clear and transparent, only slightly acid, and with little sediment. 8. All patients took the drug without dislike; it was never applied externally.—*Philad. Med. Times*, from *The Lancet.*

Curious Hypodermic Action of Glycerine.

ACCORDING to Luchsinger, the subcutaneous injection of a watery solution of glycerine into the areolar tissue is followed by an abundant discharge of the coloring-matter of the blood through the kidneys. The dissolution of the red corpuscles in the blood is always attended by the liberation of a ferment capable of transforming glycogen into sugar; but as Luchsinger could not discover sugar, while there was abundance of glycogen in the liver, he made further experiments, and discovered that glycerine, subcutaneously injected, undoubtedly possesses the power of checking, if not of preventing, the transformation of glycogen into sugar; hence the discovery may be of importance in connection with the treatment of zymotic diseases.—*Boston Jour. of Chem.*

Daturine as a Mydriatic.

THE results of numerous cases collected by Dr. Fano, and communicated to the *Journal d'Oculistique et de Chirurgie* for August and September, are as follows:

1. With a solution of daturine (1 part in 3,000) dilatation of the pupil of a healthy eye is obtained in from twenty to twenty-five minutes. 2. The action of daturine is as prompt as that of atropine; the two solutions employed being of equal strength. 3. The instillation of a daturine collyrium (1 in 600) produces dilatation of the pupil at the end of twenty-five minutes, and in young subjects in a shorter space of time. 4. The instillation of an atropine collyrium produces mydriatic effects rather more promptly than the instillation of a daturine collyrium. 5. If, in vasculo-plastic keratitis, accompanied by a non-dilatable state of the pupil, daturine be inefficacious in bringing on this dilatation, the atropine also remains ineffective. 6. But in these same kinds of keratitis, daturine sometimes produces dilatation of the pupil, when atropine has not exercised any action of the kind. If the daturine collyrium do not produce dilatation of the pupil in certain cases of vasculo-plastic keratitis, in which the mydriatic effect of the atropine is also not more appreciable, the daturine seems to exercise a special action over the vessels of the cornea, which diminish in size under the influence of the alkaloid of Datura stramonium. 8. The daturine collyrium therefore appears superior to atropine in certain cases of chronic and vasculo-plastic keratitis.—*London Med. Record.*

Medical Uses of Calabar Bean.

DR. W. MUNRO says, in the *British Medical Journal:* I have used extract of Calabar bean with advantage as a sudorific, in cases of incipient bronchitis, congestion of the liver, phthisis, with dry hot skin, etc., being always able to bring down the temperature two or three degrees, when sufficient doses were used; such dose being, for an ordinary adult, one-fifth, or at least one-sixth of a grain, as a minimum, which can be safely repeated every four to six hours, till the desired effect is produced, so long as the patient is carefully watched.

Administration of Chloroform.

DR. REEVE writes to *The Clinic:* "There is one stage of the anæsthetic process—a stage especially well marked in robust males—during which the inhalation should be slowly carried on, for it is a stage of especial danger. I allude to the struggling stage. You have all seen it, doubtless, and must have marked how respiration is interfered with—slow, jerking, or for a time entirely suspended. Over this stage always go slowly. Remember the residual air of respiration—the amount of air always in the lungs, not undergoing tidal movement. It may amount to as much as 250 cubic inches, which, if saturated with chloroform vapor

at the temperature of 60° F., would contain the vapor of 30 M., or nearly twice as much as the average quantity present in the blood of an adult when sufficiently insensible for a surgical operation. That the air is not saturated, and generally not half saturated, is the reason why we do not hear of still more accidents. You will readily understand that this vapor of the residual air is being absorbed even if respiration be entirely suspended, and now if you mark that at the close of this stage the patient usually draws several deep inspirations, you can see how easy it may be to give an overdose. Keep in mind, then, the residual air of the lungs during the administration of chloroform, and especially during the stage of struggling."

Sodium Sulpho-Carbolate as Prophylactic in Scarlatina.

DR. W. SCOTT writes to the editor of the *Medical Press and Circular*:—Without, on the present occasion, entering into the interesting question of whether the minute particles of living matter which constitute disease germs consist of animal or vegetable bioplasm, or the various other difficult points regarding the nature of the poisons of infectious diseases, I am desirous to direct the special attention of practical and thoughtful men to the use of the sulpho-carbolate of sodium, both as a curative and prophylactic agent in the treatment and cure of scarlatina. So far as I am aware, there has not been that general attention given to the subject which its vast importance demands. Mr. Crookes, Dr. A. E. Sansom, Dr. Brackenridge, perhaps others, deserve well for what has been already effected, and, so far as my experience goes, I can fully confirm their testimony; but unless a considerable number of the medical profession attend to the matter, noting cases and briefly publishing the results, but little that is certain can be reliably settled. In scarlet fever, diphtheria, and measles, the sodium sulpho-carbolate may be given in doses varying according to age, from five to thirty grains four times daily. In a mixture with simple syrup or other such ingredient it is in no way disagreeable. An extended trial is the all-important point at present, and for this time I need only say that I have seen the use of the above-named preparation followed by results far exceeding my most sanguine expectations, both in a preventive and curative point of view.—*Medical and Surgical Reporter.*

Anilin in Chorea.

DR. FISKE (*Pacific Medical Journal*) reports a case cured by this singular remedy. He remarks: "The anilin at first produced a little nausea, which soon subsided. After the fourth day of treatment, it was continued with camphor, made into pills one grain each. In two weeks the case was cured. Dr. Justin reports several cases in which like results followed. Dr. Peter Jones, of Terre Haute, Indiana, has also used it with like success in several cases, notably one which had continued for fifteen years. Dr. Aaron Wilson, of Nachitoches, has also used it, especially among the negro population, with marked success. It is best to commence with half-grain doses of the medicine, gradually increasing till two grains are given for a dose. Of the sulphate three or four grains, gradually increased to eight or ten grains, may be used. It frequently produces a blueness of the skin, which soon passes away, and need not create any alarm. It has been so prompt and beneficial in its action in the hands of these gentlemen, that its properties should be further investigated, and if found worthy, it should take a higher place in our list of remedies."

Physiological and Therapeutical Action of Gelsemium.

BERGER (*Centralblatt für die Med. Wissenschaften*, No. 43, 1875) concludes as follows as to the physiological effects of this drug upon cold- and warm-blooded animals respectively. When given to animals of the former kind, gelsemium causes cessation of motion and paralysis of the motor centres of the brain, paralysis of the function of respiration, and increase, followed by depression, of the reflex action of the spinal cord. The excitability of the peripheral motor nerve, and also that of the muscles, is diminished, together with the frequency of the heart's action. The administration of the same drug to warm-blooded animals causes paralysis of the motor centres of the brain, which is preceded by a stage of excitement and paralysis of the respiratory centre in the medulla oblongata. Sensibility remains unimpaired, while reflex irritability is at first increased and finally diminished. Its influence upon the heart's action is not very marked, the slight diminution in the frequency of the pulse appearing to be due to the irritation of the origin of the vagus in the medulla by the imperfectly aërated blood. Large doses cause a moderate diminution of the blood-pressure; and when death occurs it is always due to paralysis of the respiratory function. In order to form an opinion as to its therapeutic worth, gelsemium was given to many patients suffering with neuralgic affections of peripheral and central origin. In all these cases the results obtained were in the highest degree unsatisfactory, and it must not be forgotten that the instances of fatal poisoning on record stand in marked contrast to the slight narcotic effects of the drug.—*Medical Times.*

Phenic Acid as a Blistering Substance.

DR. HENDERSON substitutes pure phenic acid for cantharides as a blistering substance; he considers this method the most rapid and least painful, besides not exposing the patient to the cystitis that cantharides causes; it can be applied to the renal region in certain forms of nephritis.—*Union Médicale.*

The Highest Temperature Bearable by the Hand.

In No. 25 of the *Gazette Hebdomadaire* of last year it is stated that M. Bloch investigated the highest temperatures which the hand could bear in baths of different substances for two minutes at a time, and the following are the results obtained:

Substances.	Centigrade.	Fahrenheit.
Quicksilver	48°	118.4°
Water	49°	120°
Solution of tannin	49°	120°
Vinegar	51°	123.8°
Solution of sodium carbonate	52°	125.6°
Alcohol	51°	123.8°
Milk	52°	125.6°
Spirits of turpentine	55°	131°
Glycerine	57°	134.6°
Oil	60°	140°
Beef-suet	65°	149°

The reason that mercury and solution of tannin at low temperatures seem as hot as other things at higher temperatures, is, according to Bloch, the density of the former, and the rapid imbibition by the skin in the latter.

The Action of Lycoctonia.

This vegetable principle is found in Aconitum Lycoctonum, and an account of some experiments made upon it by Dr. Isaac Ott, of Philadelphia, is given in the *Philadelphia Medical Times* of October 16. He says, with a dose of .005 to .006 gramme subcutaneously in frogs, sensibility remained intact, the spinal cord appeared not directly affected, the motor nerves were paralyzed, muscles excitable, pupil contracted, disappearance of respiratory movements, heart beating for a very long time after the absence of every sign of life. In the majority of cases he found the motor nerves completely non-irritable, but in some frogs, without regard to species, and even in the same species, the motor nerves were not completely paralyzed. As to its effects upon the circulation, it was found that immediately after its injection into rabbits the pulse waves were considerably greater and steeper. In small doses, like aconitia, its action on the heart causes a delirium cordis, that is, periods when the pulse is greatly slowed whilst the pressure rises and falls in a manner not to be predicted. In larger doses there is reduction of both the pulse and the blood-pressure. The vagi are not paralyzed by small doses, while they are so affected by large ones. The following are the conclusions arrived at. 1. Lycoctonia is a weaker toxicant than aconitia. 2. It kills mainly through the respiratory apparatus. 3. It paralyzes the motor nerves. 4. It does not affect the sensory nerves, spinal cord, or the striated muscles. 5. It reduces the blood-pressure and pulse without any previous rise of the former as produced by aconitia. 6. The decreased pulse-rate and pressure are due to any action on the intercardiac nervous apparatus. 7. The pneumogastrics are paralyzed only by large doses. 8. The delirium cordis produced by small doses is due to a change in the mechanism of the nervous apparatus of the heart.

Tuberculosis Treated by Inhalations of Nitrogen.

According to *The Doctor*, Dr. Steinbrück declares that in the first stages the disease is cured with positive certainty by systematic inhalations of nitrogen, if used long enough. He does not know whether relapses occur. In the second stage improvement and cures are attained to an extent hitherto impossible. The younger the patient the better is the withdrawal of oxygen borne, and the more certain is the result. In the third stage the inhalations are dangerous. All beneficial treatment of tuberculosis must depend upon quieting of the nervous system. The inhalations are practised in an air-tight cabinet, under the supervision of the physician, and the effects looked for are easier and deeper breathing, with coughing up at first of muco-purulent matter. Subsequently, the cough should stop, the pulse and temperature fall, and the nervous system be calmed.

Physiological Action of Coumarine.

This substance, found in the Tonka bean (*Coumarouna odorata*),* in the melitot and other sweet-scented plants, has not hitherto been credited with any marked physiological activity. The researches of Köhler (*Centralblatt für die medizin. Wissen.*, Nov. 27, 1875) show, however, that it is endowed with hypnotic and anæsthetic properties of a very decided kind. It throws both cold-blooded and warm-blooded animals into a deep sleep, during which all reflex excitability disappears; its sedative effects are not preceded by any stage of excitement, or complicated by any tendency to muscular spasm or convulsion. The gradual disappearance of the reflex irritability of the spinal cord is attributed by Köhler to over-stimulation of Setschenow's inhibitory centres in the brain. Coumarine exerts a peculiar action on the cardiac inhibitory apparatus, first stimulating, and then paralyzing it. If the dose administered be large, the contractile power of the heart is ultimately destroyed; the organ stops in diastole, and no longer responds either to mechanical or to electrical stimulation. In an animal under the influence of coumarine, the respirations are sluggish and infrequent; the temperature falls, but not to any great extent. The pupils do not present any constant alteration in size.

Physiological Action of Vanadium.

This has been made the subject of an elaborate investigation by Mr. Priestly, Platt Physiological Scholar of Owens College, Manchester (*Proceedings of the Royal Soc.*, Nov., 1875). The chief purpose of the inquiry was to ascertain the physiological relationships of vanadium to the closely allied elements, arsenic and phosphorus. Tribasic sodium vanadate was the compound employed in all the experiments. It was found to be very

* For a description of this substance see p. 141 of the last volume of New Remedies.

poisonous in its effects on the lowest and the highest organisms alike. In the latter case it caused paralysis, convulsions, drowsiness, and symptoms of severe gastro-intestinal irritation. Very dilute solutions of the salt, applied locally, soon caused functional death of muscular and nervous tissue. Introduced into the circulation, sodium vanadate caused intermittent depression of the blood pressure, disappearance of the respiration-curves, and intermittent action of the heart; these effects being due to its specific action on the intracardiac nervous mechanism, and on the vaso-motor centre. The respiratory movements were first accelerated, then retarded, the retardation not being continuous, but intermittent. The salt did not manifest any sedative action on the peripheral nerve-ends, or on idio-muscular contractility.

Anæsthetics.

In the first of his Cantor Lectures on the action and uses of alcohol, Dr. B. W. Richardson gives the following list of substances which will produce anæsthetic sleep. Those in italics are derived from alcohol. Nitrous oxide gas, carbonic oxide gas, carbonic acid gas, bisulphide of carbon, light carburetted hydrogen, hydride of methyl or marsh gas, methylic alcohol, methylic ether gas, chloride of methyl gas, *bichloride of methylene*, *terchloride of formyl* or chloroform, *tetrachloride of carbon*, heavy carburetted hydrogen, *olefiant gas* or ethylene, *ethylic* (or absolute) *ether*, *chloride of ethyl*, *bichloride of ethylene*, *bromide of ethyl* or hydrobromic ether, hydride of amyl, amylene, benzol, turpentine spirit.

Poisonous Effects of Maucona Bark.

According to Claude Bernard (Séance de l'Acad. des Sciences, May 10, 1875), this bark, which is derived from Erythrophlœum Guineense Afz. Leg. (Cæsalpinieæ), occurs in flat, irregular pieces of brownish-red color and uneven surface. The tree has a cylindrical stem about 30 metres high, and sometimes as much as 2 metres in diameter. It is called *Taki* by the inhabitants of tropical Africa, of which it is a native. They use the poison of the bark for coating the tips of their arrows, and as test in ordeals. The active principle is a crystallizable alkaloid, with which Gallois and Hardy have made experiments upon rabbits, frogs, and cats, and found that it retarded and finally stopped the heart's action in systole, with respiration continuing in long intervals thereafter. Electrical (both direct and indirect) excitability of muscles remains for some time, but not as long as after simple ligation of the heart, from which they draw the conclusion, that it has a direct influence upon the motor nerves. Atropia was tried as an antidote, but found useless.

The "Bastie" Glass.—A large building is being erected, it is said, somewhere in France for the manufacture of glass tempered by the Bastie process.

BIBLIOGRAPHY.

A Practical Treatise on Diseases of the Eye. By Robert Brudenell Carter, F.R.C.S., Ophthalmic Surgeon to St. George's Hospital, etc. With numerous illustrations. London: Macmillan & Co. 1875. 8vo, pp. 591.

In the preface to his work the author emphasizes its practical character. His aim has been to place before the profession, in a concise and readable form, a general view of the present state of knowledge with regard to the nature and treatment of the more important diseases of the eye, and he has not thought it necessary to dwell minutely upon maladies of rare occurrence, or upon details which are interesting only to specialists; neither has he attempted to achieve that kind of completeness which is produced by undigested compilation. The book embodies the substance of his lectures at St. George's Hospital, and contains, so its author says, but slight reference to modes of practice of which he is unable to speak from experience. The book opens with a chapter on the anatomy and physiology of the eye, which is followed by another on the methods of examination; a separate chapter being devoted to the ophthalmoscope and its application. A chapter, each, is given to the principles of ophthalmic therapeutics, and the principles of ophthalmic surgery. Then follow the sections embracing the diseases of the eye and their treatment; and, lastly, the uses and selection of spectacles has nearly sixty pages devoted to the consideration of a practical feature of ophthalmic therapeutics, which is often lost sight of in more pretentious works.

From first to last the book is an interesting one for either the student or general practitioner. While the specialist in affections of the visual apparatus will hardly find that the book adds much to the information which he already possesses, a familiarity with its teachings on the part of the physician and surgeon in general practice will render the services of a specialist superfluous in many cases where they are now demanded. The space devoted to the science of optics, as applied to vision, is no greater than is needed to insure a comprehension of the nature of the organ and its disturbances. For the student, this is an admirable text-book, its size and the practical nature of its contents being well suited to his need.

The Cholera Epidemic of 1873 in the United States. Washington: Government Printing Office. 1875. 8vo.

This volume of over one thousand pages (1,025) contains a report submitted by the President to Congress on the 13th of January last, in accordance with a joint resolution approved March 12, 1874, authorizing an inquiry into, and report upon,

the causes of epidemic cholera. The report embraces: A.—History of the Cholera Epidemic of 1873 in the United States, by Ely McClellan, M.D., Assistant Surgeon, U. S. A. B.—History of the Travels of Asiatic Cholera, by John C. Peters, M.D., of New York City, and Ely McClellan, M.D., Assistant Surgeon, U. S. A. C.—Bibliography of Cholera, by John S. Billings, M.D., Assistant Surgeon, U. S. A.

These are prefaced by a report by Surgeon-General Woodward, of the Mercantile Marine Service, on "The Introduction of Epidemic Cholera into the United States, through the Agency of the Mercantile Marine: Suggestions of Measures of Prevention."

The most valuable part of the book is Dr. Billings' catalogue of the works and writers on cholera: three hundred and fourteen pages are filled with the titles of books and articles upon this subject. This amount of space is consumed as a result of the classification which has been adopted, and which involves considerable repetition of names and titles; but allowing for this, the literature of the subject is immense—we wish that we could also say exhaustive. But we doubt whether this report, voluminous as it is, will enable us to solve the nature and proper treatment of the disease. One thing, however, is pretty certain, viz.: just in proportion as Dr. Billings' "Bibliography of Cholera" becomes known will men, whose aspirations for fame lead them to write medical essays, choose some other subject than "Asiatic cholera" to display their wisdom upon.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.M., M.D., LL.D., Surgeon to Bellevue Hospital, etc., etc. Fifth edition, revised and improved. Illustrated with three hundred and forty-four woodcuts. Philadelphia: Henry C. Lea. 1875. 8vo, pp. 831.

When a book has gained for its author such a reputation as this has, it is hardly necessary to do more than chronicle the appearance of a new edition, and mention the changes that have been necessitated by time and more extended experience. The revival of the question of average shortening in fractures, especially of the thigh, has probably led to an increased demand for this standard work, and rendered a new edition necessary. In reference to the treatment of fractured femora, the author declines to admit that the plaster bandage is the best form of dressing, when the risks of its employment, involving the need for an anæsthetic in most instances, and the possession of more than usual skill on the part of the operator, are considered. Dr. Buck's method of extension seems to offer the best results, both as regards the average amount of shortening, facility for observation of the limb, and the amount of skill required for its application and management. The few other changes which have been observed by us, seem to be in the section devoted to fractures.

A System of Midwifery; including the Diseases of Pregnancy and the Puerperal State. By William Leishman, M.D., etc. Second American from the Second and Revised English Edition. With additions by John S. Parry, M.D., etc. Philadelphia: Henry C. Lea. 1875. 8vo, pp. 766.

Since the publication in Glasgow, in 1873, of the first edition of this work, it has become one of the most popular text-books on midwifery in the language. Its second edition has several important changes and additions, among which may be noted the change in the author's views concerning the nature of the fever of the puerperal state and, in the American edition, the matter relating to forceps and the position of the mother during delivery, which were necessary to adapt the book to the wants of physicians on this side of the water. Excepting, perhaps, Dr. Leishman's views in reference to the employment of the forceps, we have yet to hear an unfavorable criticism of the book; on the contrary, the demand for a second edition, after so short an interval, is a sufficient guarantee of its excellence. In the American edition the work of the editor is most apparent in the later portions of the book, and adds very considerably to its value.

A Text-Book of Human Physiology. Designed for the use of Practitioners and Students of Medicine. By Austin Flint, Jr., M.D., Professor of Physiology and Physiological Anatomy, etc. Illustrated by three Lithographic Plates and three hundred and thirteen woodcuts. New York: D. Appleton & Co. 1876 [5?]. 8vo, pp. 978.

To call this work a text-book is, we think, a misnomer. Knowing very well the capacity which Dr. Flint possesses for condensation, we had expected that this volume would be much more brief than it is, especially as his larger work in five volumes, but just completed, would serve the purposes of those who desired to study the subject in detail; but, excepting historical notices and references to the literature of the subject, this work is almost as full a treatise as the other. It is not, however, a mere rearrangement of the matter contained in the larger work, but is to a great extent rewritten, and contains accounts of more recent advances. The text is superbly illustrated; some of the cuts representing microscopic appearances of tissues are marvels, and will bear comparison with any specimens we have ever seen of the art of woodcutting. Among the changes, we notice that the chapter on Proximate Principles is omitted, the substances formerly embraced in it being described in connection with the tissues in fluids in which they occur. Plasmine, metalbumen, and serine are included, these principles existing in the blood. Fibrine is declared to be one of the products of decomposition of plasmine, metalbumen being the other product, and it with serine constitutes what has been known as albumen.

According to the present ideas of the author, fibrine does not exist as a proximate principle, and plasmine is never decomposed in the body, under perfectly normal conditions; but if the blood be drawn from the body, effused from the vessels, or if the circulation be arrested for a certain time, plasmine is decomposed, fibrine is formed, and the blood coagulates. The ammonia theory, taught heretofore by Dr. Flint, has been abandoned, and the cause of the coagulation of the blood, further than is explained by the above statement, is left, where it at present belongs, in uncertainty.

The assumption by von Recklinghausen and others, that connective tissue contains minute tubes and canaliculi which open into lymphatic vessels, is declared to be purely hypothetical, and the connection of the large serous sacs with the lymphatic system receives no special comment. The later portion of the volume appears to differ but little from the recent volumes of the larger series, except in the number of illustrations. While the work is unexcelled as a treatise for consultation by the practitioner or the advanced student, it is reasonable to suppose that with our present system of medical education, the student, who should acquire his chief knowledge of physiology in the first year of his course, would in most cases be confused by the multitude of facts which a text-book like this one offers for his instruction, and would learn more thoroughly from a more elementary treatise.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Volume I. Philadelphia: Printed for the College. 1875. 8vo., pp. 192.

THIS is an exceedingly handsome volume, comprising lists of members, officers, etc., and the following essays, viz.: I. Report of an Autopsy on the Bodies of Chang and Eng Bunker, commonly known as the Siamese Twins, by Harrison Allen, M.D., etc. II. Case of Adenoid (Hodgkin's) Disease, by James H. Hutchinson, M.D., etc. III. Case of Fracture of the Neck of the Scapula, by John Ashhurst, Jr., M.D., etc. IV. On a New Operation for Certain Cases of Cleft Palate and Bifid Uvula, by William S. Forbes, M.D., etc. V. On the Operative and Conservative Surgery of the Larger Joints, by John Ashhurst, Jr., M.D., etc. VI. Experiments on the Laryngeal Nerves and Muscles of Respiration, etc., in a Criminal Executed by Hanging, by W. W. Keen, M.D., etc. VII. On the Use of Nitrite of Amyl in Various Forms of Spasm, and on its Value as an Aid to Diagnosis, by S. Weir Mitchell, M.D. VIII. Case of Acute Tetanus, successfully treated by the Inhalation of the Nitrite of Amyl, etc., by Wm. S. Forbes, M.D. IX. Remarks on Diabetes Insipidus and its Treatment by Ergot, by J. M. Da Costa, M.D., etc. X. Prof. W. H. Pancoast's paper on the Surgical considerations of the propriety of an operation for the separation of the Siamese Twins. XI. A Case of Encysted Dropsy of the Peritoneum, by J. Ewing Meares, M.D., etc.; and, XII. Quinia as a Stimulant to the Pregnant Uterus, by Albert H. Smith, M.D., etc. Abstracts of some of these papers have already appeared in NEW REMEDIES, and the remainder are well worthy of attention.

PHARMACEUTICAL SUNDRIES AND NEW INSTRUMENTS.

Leiter's Instrument for Hypodermic Injection.

MESSRS. REYNDERS & Co. have furnished us with some cuts (half the natural size), illustrating an apparatus for the quick and painless hypodermic injection of medicines, which is the work of J. Leiter. Several attempts have been made, principally by English instrument-makers, we believe, to construct an instrument for this purpose, but none have succeeded so well, thus far, as the Vienna manufacturer. The instrument, together with a bottle for holding a solution, is packed in a hard rubber case, and consists of the tube *a* (Fig. 1), which contains a spiral spring *d* (the slot shown in the cut does not exist in the instrument). When the spring is set it is held by catching the trigger *f* in the notch *g*. A hard rubber syringe, of the capacity of one gramme, is first filled and introduced into the tube *a*. The tube *b* is next screwed on, and the depth to which the needle is to penetrate is regulated by the sliding-tube *c*, the bevelled point of which permits the needle to be entered at an angle to the surface. The spring by its recoil not only causes the needle to enter the skin and subjacent tissues, but

at the same time forces down the piston and ejects the fluid. It can readily be perceived that the successful

working of this instrument depends largely on the accuracy with which the piston fits its barrel. To insure this the latter has been made of hard rubber instead of glass, and unusual care has been taken in constructing both the barrel and the piston. The retail price of the instrument complete is $8.

Becker & Son's New Prescription Balance.

THE adjoining cut was made from one of the new prescription scales referred to by Professor Bedford, in the last social meeting of the College of Pharmacy (page 61). Nothing has been offered for this purpose which meets the need of the pharmacist in so many ways or so perfectly as this. In the first place they are accurate—the reputation of the maker is a sufficient guarantee for this. While they will carry, with perfect safety, a weight of 124 to 170 grammes (4 to 5 ozs.), they turn with 2.159 milligrammes ($\frac{1}{30}$ gr.). Excepting the two small holes for the passage of the rods supporting the pan-holders, the works are entirely enclosed

in an ebonized box, with a marble top. When not in use, a hinged lid, with a glass top, protects the pans from dust and moisture. An apparatus for taking the weight of the balance off from it supporting knife-edges facilitates its adjustment, and when the scale is not in use protects the centres of motion from the effects of jarring. The pans are removable and interchangeable, and are the only things about the apparatus which require careful cleaning. The delicacy of the balance is also well shown by the electrical phenomenon mentioned by Prof. Bedford (loc. cit.). Lastly, the price is $22.

Bellows-Box for Insect Powders.

PERSIAN INSECT POWDER, and the wild rosemary (*Ledum palustre*), which is sometimes substituted for it (see NEW REMEDIES, vol. iv., p. 357), have gained considerable reputation as insecticides. As the efficacy of either of these is said to depend largely upon their being thrown upon the insects in fine dust, several apparatuses have been employed to accomplish this end, and at the same time avoid the waste which occurs when the powders are used from simple flasks. Among the most recent and effectual of these, is the bellows-box devised by Messrs. Gerard & Jaquith, of 139 William Street, New York, which they offer, filled with powder, at the usual price of the flasks alone. They also put up a powder of "tobacco and hellebore" for plant insects. Either of these retail at twenty-five cents, with a discount to the trade.

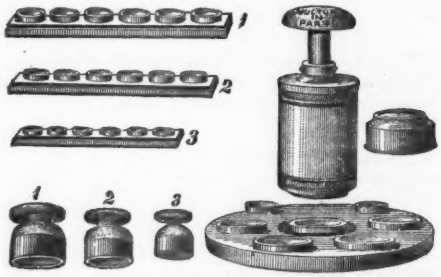
Goodyear's "Pocket Gymnasium."

GOODYEAR'S India-Rubber Curler Co., of 697 Broadway, manufacture a very serviceable apparatus for facilitating gymnastic exercise, an illustration of which appears in our advertising pages. The thing consists of a vulcanized India-rubber tube having wooden handles at the ends, and a safety-cord loosely coiled in its interior, which prevents over-stretching. Several sizes are made, adapted to persons of different degrees of strength, and varying in price from $1.00 to $2.00. It would require more enthusiasm than we think most people possess, to lead them to pursue by themselves a systematic training with any of these forms of elastic apparatus, but such implements are very serviceable when employed in classes, and have been introduced into many gymnastic establishments for the purpose of exercising the muscles of the spine, chest, and upper extremities, to which purpose the "Pocket Gymnasium" is admirably adapted.

Wafer Capsules.

THE novelty among pharmacists at present is M. Limousin's method of administering medicines—chiefly powders—in disk-shaped wafers. Many of the pharmacists in this neighborhood who do a prescription business have already supplied themselves with the necessary apparatus, and the use of the wafers shows that the operation of taking even the most disagreeable powders, when not too bulky, is rendered as easy as it could possibly be.

The practice of enclosing powders and pills in the folds of a moistened wafer has long been pursued, but the manipulation has to be performed at the time the remedy is to



be given, and owing to the tenderness of the moistened wafer this is not always easy. By M. Limousin's method two disks of wafer, shaped like small watch-crystals, are cemented together at their edges so as to inclose the dose, which can then be kept for an indefinite period without exposure to air, or risk of loss by handling, as in the case of paper-wrapped powders.

The shape of the capsule adapts it nicely for being swallowed, and with the help of a mouthful of water it slips past the columns of the palate and gives no further trouble.

This method is especially adapted for quinine, and many of the iron preparations. The adjoining cut is furnished by Neidlinger & Co., of 100 William Street, and represents a very good form of the apparatus for sale by them.

Flower and Garden Seeds.

DRUGGISTS and others who buy seeds for their personal use, or to sell to their customers, will do wisely to write to James Vick, Rochester, N. Y., or to B. K. Bliss & Sons, 34 Barclay Street, N. Y. Both are very responsible concerns, and have enviable reputations for the reliability of the seeds they sell. The former is probably the largest grower and dealer in flower-seeds in America, and the latter make a specialty of field and vegetable seeds. They offer $500 in prizes this year again to potato-growers. Send for their catalogues.

India-rubber hand stamps, manufactured by S. K. Cooke & Co., 92 Chambers Street, N. Y., have deservedly grown into very general use. They are very convenient, and adapted to a variety of uses—cheap, too.

NEW PATENTS AND LAWS.

TRADE MARKS REGISTERED IN U. S. PATENT OFFICE.

Certificates bearing date Dec. 7, 1875.

3,195. **Bitters.**—Henry Ernst, New York, N. Y. Application filed Nov. 19, 1875. "Words 'MODOC VEGETABLE BITTERS.'"

3,214. **Bitters.**—Moses G. Lansberg, New York, N. Y. Application filed Nov. 23, 1875. "Word 'CENTURY,' in combination with the pseudonym 'Mosha Shnurrer' in Hebrew."

Certificates bearing date Dec. 14, 1875.

3,238. **Medical Preparation.**—Henry A. Tilden, New Lebanon, N. Y. Application filed Nov. 27, 1875. "Word 'Firwein.'"

3,239. **Medical Preparation.**—West, Trafford & Co., Westport, Mass. Application filed Nov. 24, 1875. "Words and letters 'R. A. West's Wonderful Discovery,' and a monogram composed of the letters 'W., T. & Co.'"

3,242. **Druggists' Preparations.**—John Gilbert & Co., Philadelphia, Pa. Application filed Oct. 28, 1875. "A picture representing a chemist at work in his laboratory, seated in front of the furnace thereof."

3,245. **Medical Compound.**—Otto T. Lohmann, Cleveland, Ohio. Application filed Nov. 24, 1875. "Words 'BISMARCK'S LIFE INVIGORATOR,' in connection with a vignette portrait of Prince Bismarck."

3,246. **Food for Children.**—Charles Maynac, New York, N. Y.—Case A. Application filed Nov. 29, 1875. "Word 'PÆDOTHROPINE.'"

3,247. **Food for Children.**—Charles Maynac, New York, N. Y.—Case B. Application filed Nov. 29, 1875. "Words 'DEUTSCHES KINDERMEHL.'"

3,248. **Food for Children.**—Charles Maynac, New York, N. Y.—Case C. Application filed Nov. 29, 1877. "Word 'INFANTMEAL.'"

Certificates bearing date Dec. 21, 1875.

3,255. **Liniment.**—C. F. Brown Chemical Company, New York, N. Y. (re-registration). Application filed April 18, 1872. "Words 'YOUNG AMERICAN.'"

3,261. **Hair-Producer.**—Harriet A. Moore, San Francisco, Cal. Application filed Oct. 19, 1875. "Words 'MRS. H. A. MOORE'S HAIR PRODUCER,' in conjunction with the portrait or figure."

3,264. **Preparation of Cod-Liver Oil.**—Edward H. Truex, New York, N. Y. (re-registration). Application filed March 25, 1872. "Words 'COD-LIVER OIL JELLY.'"

3,277. **Medical Preparation.**—Thomas H. Smart, Philadelphia, Pa. Application filed Nov. 27, 1875. "Words 'SELF CURE.'"

3,278. **Poison and Poisonous Compositions for the Destruction of Squirrels, etc.**—James G. Steele, San Francisco, Cal. Application filed Nov. 18, 1875. "Words 'STEELE'S SQUIRREL POISON,' and a cut representing a group of five squirrels."

Certificates bearing date Jan. 4, 1876.

3,292. **Medical Preparations.**—Dundas Dick & Co., New York, N. Y.—Case A. Application filed, Nov. 30, 1875. "Letters and character as follows, to wit: D. D. & Co."

3,293. **Capsules and Medical Preparations.**—Dundas Dick & Co., New York, N. Y.—Case C. Application filed, Nov. 30, 1875. "Word 'CASULET.'"

3,296. **Medical Preparations.**—William J. Griffith, Youngstown, Ohio. Application filed August 9, 1875. "Words 'J. W. GRIFFITH, M.D., & Co.,' 'TRA MOR TRAVAZON REMEDIES,' and 'TRA BRYTHON RANGERS' GREENBACK OIL.'"

3,305. **Acetic Acid.**—Francis Coutts & Sons, Glasgow, Scotland, and London and Manchester, England. Application filed Nov. 27, 1875. "Representation of a cloud emitting rays, the globe with the central band, and the words 'AUXILIO DIVINO.'"

3,327. **Rochelle Salts, Seidlitz Mixture, Pulverized Tartaric Acid, and Bicarbonate of Soda.**—William H. Schieffelin & Co., New York, N. Y. Application filed Dec. 18, 1875. "Letters and characters 'S., K. & Co.,' which are placed on a band with printed wings, passing centrally through a circle of nearly the same diameter as the band."

3,328. **Dentifrice.**—Quincy A. Scott, Pittsburg, Pa. Application filed Dec. 17, 1875. "Word 'CENTENNIAL.'"

3,329. **Tooth Brushes.**—Quincy A. Scott, Pittsburg, Pa. Application filed Dec. 17, 1875. "Word 'CENTENNIAL.'"

3,330. **Toilet and other Soaps.**—Quincy A. Scott, Pittsburg, Pa. Application filed Dec. 17, 1875. "Pictures or representations of the five Centennial buildings."

3,334. **Medical Compound.**—Thomas R. Steel, Philadelphia, Pa. Application filed Dec. 16, 1875. "Monogram composed of the letters 'A. G.,' and the words 'APPLE GINGER.'"

Certificates bearing date Jan. 11, 1875.

3,347. **Syringes.**—Morris Mattson, New York, N. Y. Application filed Nov. 29, 1875. "Words 'FAMILY SYRINGE.'"

LABELS REGISTERED IN THE U. S. PATENT OFFICE.

Certificates dated Dec. 7, 1875.

416. "**Royal Dietamia Medicinal Nutritive.**"—William G. Cooke, New Haven, Conn. Application filed Nov. 29, 1875.

417. "**Comfort's Conserve of Hollyhock for Colds,**" etc.—Charles L. Comfort, Philadelphia, Pa. Application filed Nov. 13, 1875.

418. "**Dr. Comfort's Composing Cordial.**"—Charles L. Comfort, Philadelphia, Pa. Application filed Nov. 13, 1875.

419. "**An Elegant and Fragrant Preparation for Cleansing and Preserving the Teeth—Orisena.**"—Thos. J. Cox, Jr., Orange, N. J. Application filed Dec. 1, 1875.

422. "**Dr. Kuhne's Stimulating Liniment.**"—H. Kuhne, Cincinnati, Ohio. Application filed Dec. 2, 1875.

425. "**Carbolic Pocket Disinfectant.**"—Parker & Company, Brooklyn, N. Y. Application filed Dec. 2, 1875.

Certificates dated Dec. 14, 1875.

429. "**H. G. Farrell's Celebrated Arabian Liniment.**"—Hiram G. Farrell, Peoria, Ill. Application filed Dec. 7, 1875.

436. "**R. J. Owens, chemist, Carbolic Acid Family Salve.**"—R. J. Owens, Brooklyn, N. Y. Application filed Dec. 9, 1875.

438. "**Tibbett's Pile Ointment.**"—Lewis Tibbetts, Augusta, Me. Application filed Nov. 22, 1875.

439. "**Thomas' Specific Preparation, Nos. 1, 2, and 3, for the Hair.**"—John W. Thomas, New Orleans, La. Application filed Nov. 13, 1875.

Certificates dated Dec. 28, 1875.

456. "**Davidson's Instant Toothache Cure.**"—Henry M. Davidson, Ogdensburg, N. Y. Application filed Dec. 20, 1875.

462. "**Mathis' Quarter Dollar Family Liniment.**"—Charles B. Mathis, Tom's River, N. J. Application filed Dec. 20, 1875.

Certificates dated Jan. 4, 1876.

465. "**Edmund's Cough Balsam.**"—Allen Smith & Co., Waltham, Mass. Application filed Dec. 28, 1875.

466. "**Barbour's Russian Remedy.**"—L. D. Barbour, Philadelphia, Pa. Application filed Dec. 22, 1875.

467. "**Poor Richard Thompson's Magic Eye-Water.**"—W. W. Clark, Hot Springs, Ark. Application filed Dec. 17, 1875.

471. "**Oriental Fumigating Paper.**"—L. Mussehl, N. J. Application filed Dec. 27, 1875.

472. "**Superior Bouquet Eau de Cologne.**"—E. Walton Russell, Baltimore, Md. Application filed Dec. 22, 1875.

473. "**James G. Steele & Co., Perfumers—Sachet.**"—James G. Steele & Co., San Francisco, Cal. Application filed Dec. 30, 1875.

474. "**James G. Steele & Co., Perfumers—Triple Extract.**"—James G. Steele & Co., San Francisco, Cal. Application filed Dec. 30, 1875.

476. "**Mrs. F. Werle's Life-Preserver and Blood-Purifier.**"—Jacob Werle, Cincinnati, Ohio. Application filed Dec. 27, 1875.

Certificates filed Jan. 11, 1876.

478. "**Stillman's Elixir of Life.**"—Andrew L. Stillman, Petersburg, N. Y. Application filed Feb. 5, 1875.

479. "**Dr. Parker's Whooping-Cough Syrup.**"—John A. Weaver, Easton, Pa. Application filed Jan. 5, 1876.

480. "**Dr. Aug. Kŏnig's Familiar Medicine.**"—A. Vogeler & Co., Baltimore, Md. Application filed Jan. 5, 1876.

481. "**The Standard German Household Remedies.**"—A. Vogeler & Co., Baltimore, Md. Application filed Jan. 5, 1876.

484. "**Potter's Excelsior Dentifrice.**"—John E. Potter, Providence, R. I. Application filed Jan. 5, 1876.

NEW PATENTS.

December 7, 1875.

170,655. **Back and Shoulder Braces.**—H. R. Allen, Indianapolis, Ind. [Filed Sept. 25, 1875.] An arrangement of bands, levers, pawls and ratchets is placed around and upon the person to straighten curvatures of the spine, etc.

170,656. **Hip and Thigh Braces.**—H. R. Allen, Indianapolis, Ind. [Filed Sept. 25, 1875.] Several bands passing around the waist are connected at their sides by vertical bars, and the lower one furnished in front with a peculiarly constructed spring-pad. Bands and vertical connections also are arranged to inclose the leg. A strap adjustment draws down the foot, to prevent shortening of the limb in case of fracture.

170,670. **Compounds as a Substitute for Eggs.**—Joseph A. Griffen, Syracuse, N. Y. [Filed Nov. 9, 1875.] The compound consisting of cream tartar, tartaric acid, alum, soda bicarbonate, sugar, curcuma, gum arabic, sulphur and starch, in about the proportions above specified, as and for the purpose described.

170,700. **Processes of Preparing Preserved Fruit.**—John F. Basford, New York, N. Y. [Filed Oct. 16, 1875.] The process of preparing preserved fruit for the use of bakers and others, by bringing an equal quantity of fruit and water to a boil, and then adding one ounce of starch to each quart of the diluted fruit, as set forth.

170,795. **Spectacles.**—Frederick Friser, Danville, Ky. [Filed Oct. 23, 1875.] The spectacle glasses have a shade placed above the frames, for the purpose of shading the eye from the direct rays of light.

170,827. **Instrument for Aiding Animals in giving Birth.**—William Dulin, Big Grove, Iowa. [Filed Oct. 21, 1875.] A spoon-shaped wire frame is passed over the head of the pig, and a wire slide is slipped up under the jaw, and traction applied by the handles, with which the frame and slide are furnished.

170,851. **Speculums.**—E. B. Harding, Northampton, and E. W. Higbee, Springfield, Mass. [Filed Nov. 2, 1875.] The flange of the short blade is extended to complete a circle, and in the lower side of it is a slot to receive the lug of the long blade when opened to its fullest extent. The extreme ends of the blade are wider than any other parts of the same.

170,864. **Galvanic Batteries.**—Robert M. Lockwood, New York, N. Y., Assignor to himself and E. W. Andrews, same place. [Filed Sept. 1, 1874.] 1. The porous cup, resting upon or sustained by a connection to the copper pole, and the zinc pole supported within the porous cup, so that the relative position of the poles is maintained, and they rest upon the sulphate of copper crystals in the cell, as set forth. 2. The copper pole, made of the funnel-shaped plate *a* and ring *b*, connected together and receiving the supports *f*, that sustain the porous cup *e*, as and for the purposes set forth.

170,918. **Medical Compositions.**—Isaac T. Thrash, Griffin, Ga., assignor of two-thirds his right to John M. Williams and Daniel S. Muse, same place. [Filed Sept. 19, 1875.] A composition of matter consisting of buck's-horn, water, bark of the root of button-willow, honey, and Jamaica rum, mixed together, substantially and in the manner and for the purposes set forth.

Reissued.

6,790. **Invalid Bedsteads.**—Whittier Machine Company, Boston, Mass., assignee, by mesne assignments of Josiah Crosby, deceased. Patent No. 43,900, dated Aug. 23, 1864. [Filed Nov. 24, 1875.]

December 14.

170,952. **Filters for Liquids holding Solid Impurities.**—Elias S. Hutchinson, Baltimore, Md. [Filed Nov. 12, 1875.] Partitions of wood or iron have vertical grooves, ending in horizontal grooves for passage of filtered liquor. Partitions, clamped together by end-plates and side-bolts, may slide into grooves formed in side-plates. Partitions covered with wire-cloth or perforated plate, a finer-meshed covering of the same material, and an outer filtering-cloth, and outside of all a coarser perforated plate or wire-cloth. Scrapers work against outer wire-cloth. Matter scraped falls into depressed bottom, thence falls into the well, is then cut by pins on revolving shaft, and delivered through the screw-stopped outlet.

170,975. **Suppository Moulds.**—Albert S. Wetmore, Cleveland, Ohio, assignor to J. E. Lavry, same place. [Filed No. 24, 1875.] The mould is conveniently arranged, with a central third hinged part. The central part has half-conical openings on each of its sides, to register with the same in the outer leaves.

171,012. **Abdominal Corsets.**—Catherine A. Griswold, New York, N. Y. [Filed Oct. 29, 1875.] An abdominal supporter formed of a central and curved side-bands, the former attached to front of corset, and the latter to side-stays, or hip-bands, as shown and described, for the purpose of throwing the usual strain upon the hips and shoulders.

171,020. **Reversible Filters.**—Edward C. Houghton, Cambridgeport, assignor to C. C. Walworth, Boston, Mass. [Filed June 10, 1875.] When the filter becomes clogged the shell or case may be removed and inserted in a reversed position; thus the filter will be cleansed.

171,049. **Retorts for Concentrating Sulphuric Acid.**—Jos. Saunders, Brooklyn, N. Y. [Filed Nov. 10, 1875.]

171,054. **Remedies for Rheumatism.**—Aug. Severin, New York, N. Y., assignor to himself and Frederick Zarnfaller, same place. [Filed Oct. 8, 1875.] The composition of iodide of potassium, solid extract of aconite, wine of colchicum, morphine, and compound syrup of sarsaparilla, substantially in the proportions herein described.

171,065. **Apparatus for Filtering Liquids.**—Thomas R. Sinclaire, New York, N. Y., assignor to Sinclaire Rectifying Machine Company, same place. [Filed July 6, 1874.]

171,056. **Apparatus for Filtering Liquids.**—Thomas R. Sinclaire, Brooklyn, N. Y., assignor to Sinclaire Rectifying Machine Company, New York City. [Filed May 6, 1875.]

171,117. **Manufacture of Gas.**—Joseph P. Gill, Newark, N. J., assignor to Robert W. Rutherford and Joseph P. Gill, trustees of the Illuminating Gas Apparatus Construction Company. [Filed Nov. 29, 1874.] The manufacture of hydrogen gas by passing steam over heated iron.

December 21.

171,207. **Combined Shoulder Braces and Suspenders.**—Horace S. Archer, Haverhill, Mass., assignor to G. W. Wentworth, same place. [Filed Nov. 2, 1875.]

171,240. **Bottling Mineral Waters, etc.**—John B. Newbrough, New York, N. Y. [Filed Oct. 29, 1875.] As the cork leaves the plunger, it strikes a thin patch of rubber placed over the bottle-mouth. Both enter the neck, and, from the quickness of the movement, that portion of the elastic film below the bottom of the cork and that which covers the lower portion of said cork, expand sufficiently to cover the bottom and sides of the stopper. The film is so thin that the liquid does not become impregnated with a rubber taste; yet it is sufficient to protect the cork from deleterious action.

171,304. **Bottle-Stoppers.**—S. S. Newton, Binghamton, N. Y. [Filed Nov. 20, 1875.] By screwing downward the tube, the ports become uncovered, and liquid may be discharged from the bottle. A reverse action closes the stopping device.

171,315. **Corks for Bottling Beer and Similar Liquids.**—Charles Pfannenstiehl, Memphis, Tenn. [Filed Oct. 27, 1875.] The cork is saturated with oil to render it elastic. Corks so treated, it is alleged, can be forced into the bottles filled to the top, without bursting them.

171,332. **Apparatus for Preserving Corpses and other Organic Matter from Decomposition.**—James Whelan, Zanesville, Ohio. [Filed June 5, 1875.] Generates chlorine gas, washes it by passage through water, dries it by passing it over sulphuric acid, and admits it into a holder containing quicklime. Light may be admitted to holder to actinitize the gas. From holder gas is admitted under natural or artificial pressure to the casket, when it is actinitized.

171,410. **Bottle Stoppers.**—Thomas U. Murray, New York, N. Y., assignor of one-half his right to Henry Van Derbeck, same place. [Filed Nov. 27, 1875.]

171,426. **Apparatus for Distilling and Rectifying Liquids.**—Joseph W. Reford, New York, N. Y., assignor to William Watt, same place. [Filed June 30, 1875.]

171,439. **Packing Filters.**—T. R. Sinclaire, New York, N. Y. [Filed April 6, 1874.] A method of packing, by which liquid may be properly filtered in increased quantities without increasing the pressure or the construction of the machine.

Re-Issued.

6,809. **Nursing-Bottles.**—Milo S. Burr, Boston, Mass. Patent No. 68,285, dated Aug. 27, 1867. [Filed Nov. 11, 1875.] The mouth-guard has a continuation in both directions, with shoulders upon one end to hold the suction-tube, and upon the other to hold the nipple.

NOTES, QUERIES AND ANSWERS.

[*Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, providing they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lay over until the next issue.*]

W. E. A. (New York,), N. Y.—On page 44 of NEW REMEDIES for 1874 you will find an article on the therapeutic use of the bromide of zinc, which was taken from the *Virginia Clinical Record*. Dr. L. S. Joynes suggests the use of this remedy in cases where bromide of potassium and oxide of zinc would ordinarily be employed, and reports a case of hysteria treated with a glycerole of the bromide of zinc, viz., fifteen to twenty drops, properly diluted. Very little has been written concerning this substance. None of the works on therapeutics, materia medica or chemistry which we have consulted mention it, and we find no reference to it in either of the ten volumes of the *Medical Record*, or in the index to the first twelve volumes of *The Practitioner*, which is just received.

Th. C. (N.Y.)—An answer to your inquiry as to the best solvent for salicylic acid, so as to produce a strong solution, will be found on page 44 of this number. You should notify the physician of the substance used to facilitate solution, as in particular cases the presence of certain substances would be injurious. A prescription like the following, for instance: ℞ Acid. salicyl. solut. 1 in 20—should not be dispensed until it is ascertained, or unless it is previously known, that no objection will be made to the particular solvent employed. We have known such solutions prepared by means of alcohol, which sometimes do a great deal more harm than good.

J. M. (New York).—Our correspondent asks to be informed of a method for employing chromic acid in form of a paste, so as to be applicable to surfaces where its effect is intended to be exerted gradually.—Owing to the energetic oxidizing action of chromic acid upon organic substances it would be scarcely advisable to combine it with such; the safest plan we think would be to saturate loose asbestos-wool with a solution of it, in any desired strength, and to apply the same to the affected part.

A. S. B. (Virginia, Nev.)—T. W. W. (Utica, N. Y.)—These correspondents desire to find a book which gives instruction in Latin, as applied especially to pharmacy and prescriptions. One of them writes, "I have recently got a copy of *Hager's Manuale Pharmaceuticum*, and found that I could not read all the manipulations."—If you desire to learn enough Latin to be able to read connected sentences or paragraphs, such as occur in the work you mention, or in some of the European pharmacopœias—not to mention Latin authors generally—it will be necessary for you not only to learn grammar (elementary and syntax) thoroughly, but to practise translation from Latin to English and from English to Latin, until you have mastered the peculiarities of Latin construction, which will naturally require some

time, and should be done under a competent teacher. If you wish, however, to acquire merely a superficial knowledge of Latin, such as would enable you to understand the phraseology of prescriptions, you may consult "Thomas' Medical Dictionary," which contains an appendix covering this ground; or the admirable little work by W. Handsell Griffiths, a notice of which appeared on page 24 of our last number. We strongly advise you to adopt the former plan, if circumstances allow it.

J. S. Van B. (Bridgeport, Conn.)—We are not aware of any intention on the part of the American Pharmaceutical Association to push legislation for pharmaceutical qualifications and licenses in the several States. On the contrary, this matter is and must be left to the various pharmaceutical bodies in the different States. However, the mutual exchange of opinions and views of the delegates who attend the annual session promotes the chances of harmony of the various laws, at least in their principal features, and helps to make the standard of qualification more uniform.

A. Sch., Jr. (N. Y.)—"Schlippe's salt" is sodium-sulphantimonide, a compound in which sodium sulphide is the sulphur base and antimonious sulphide the sulphur acid: $3Na_2S$, Sb_2S_3. When crystallized it contains nine molecules of H_2O. It is used in the preparation of kermes mineral and antimonium sulphuratum (Ph. Boruss.), and is employed by photographers for intensifying negatives.

PRESCRIPTIONS AND FORMULÆ.

Mucilage for Mineralogical Specimens.—Mr. F. C. Hill sends to the *American Journal of Pharmacy* a recipe for mucilage to mend fossils and minerals. The cement is described as invaluable, being very adhesive, never becoming brittle or scaling off, and answering well for gumming labels, etc. Starch, two parts; white sugar, eight; gum arabic, sixteen parts; water, sufficient. Dissolve the gum, add the sugar and starch, and boil until the starch becomes transparent.

Milk of Roses.—The following is a good recipe for this popular cosmetic:—

Almonds (blanched)	½ lb.
Rose water	1 pt.
Alcohol, 95 per cent	4 oz.
Oil of rose	1 dr.
White wax,	
Spermaceti,	
Oil soap, āā	½ oz.

Melt the soap in three ounces of rose water over a water-bath; when melted add the wax and spermaceti, and mix well with occasional stirring; make an emulsion of milk with the almonds and rose-water, and strain without pressure; place the saponaceous mixture into a mortar and with constant stirring gradually add the almond emulsion, and continue to stir until the whole is completely blended together. Next slowly add the alcohol (in which the oil of rose has been dissolved) and stir vigorously for some time; put the whole into a bottle, let it stand twenty-four hours, then bottle for use, rejecting the sediment.

All the above precautions being taken, the milk of roses will keep a great length of time without any separation or precipitate.

To make Court-Plaster adhere.—The adhesiveness of court-plaster is much increased by moistening the back of the plaster, after being applied, with a little glycerin; or by adding about 10% of glycerin to the water used for moistening the face of the plaster itself.

Prevention of Nail-Biting.—A correspondent of the *British Med. Jour.*, having asked for a cure for this habit, a reply was given, suggesting the application of styptic colloid (tannin in collodion) in a thin line at the end of each nail. It dries quickly, forming a film, the bitter taste of which acts as a reminder. It must be re-applied however whenever the hands have been washed."

Habitual Constipation.—This formula is recommended by Dr. Marchant as a convenient one to avoid the griping sometimes caused by podophyllin, and to exercise a beneficial effect on the condition of the bowels leading to constipation:

℞ Resin. podophyll	gr. ij.
Ext. hyoscyami.,	
Sapon. Castil, āā	gr. viij.

M. Div. in pil. xxiv.
Sig. One at night.

Chilblains.—According to the *Revue Medico-Photographique*, the following is a convenient, economical, and efficacious application for chilblains and "chaps:"

Alcohol (85%)	100 parts.
Glycerin	25 parts.
Carbolic acid	1 part.

Professor Hebra, of Vienna, recommends the following ointment to be spread on strips of linen, and wrapped at night around the parts affected with chilblains:

Cerat. simp.,	
Olei olivæ, āā	fl ℥ ij.
Glycerinæ	fl ℥ ij.
Spts. Camph	fl ℥ j.

M.

Pocket Mucilage.—Boil one pound of the best white glue and strain very clear; boil also four ounces of isinglass, and mix the two together; place them on a water-bath with half a pound of white sugar, and evaporate till the liquid is quite thick, when it is to be poured into moulds, cut, and dried to carry in the pocket. This mucilage immediately dissolves in water, and fastens paper very firmly.

A New Salve for the Itch.—℞ Styrax, flor. sulphur., cret. præpar., āā 16 parts; green soap, axung. āā 32 parts. M.

This ointment is of a greenish yellow color, of good consistence, and of an agreeable odor. The patient applies the ointment at night before going to bed, taking good care to rub it in thoroughly over those parts where the acari are usually found. These inunctions are repeated for two consecutive days; the patient can go about his business through the day; at the end of three days the patient takes a full bath. For infants at the breast, an equal part of simple cerate is added to the ointment.—Dr. Weinberg.

Elixir of Rhamnus Frangula.—Mr. F. Toussaint, of New York, sends us the formula for preparing an elixir of Rhamnus frangula, which has been found very effective in constipation and deserves trial.

Take of Rhamnus frangula (or buckthorn) bark, in moderately coarse powder, eight troy ounces; alcohol and water in the proportion of one measure of alcohol to three measures of water, a sufficient quantity.

Moisten the powder with one and a half fluid ounces of the menstruum, pack it in a percolator, and gradually pour more of the menstruum upon it, until fourteen fluid ounces of tincture are obtained. Mix this with two fluid ounces of sirup, to make one pint of elixir.

One fluid ounce contains the soluble elements of half a troy ounce of the bark. The dose is one teaspoonful at night, or night and morning.

To Relieve the Offensive Discharges from Cancer, etc.—To counteract these, washing the parts with a weak solution of sulphurous acid, bathing them with terebene and with a solution of chloral (℥ i. to ℥ iv.), have been recommended.

Emulsion of Cod-liver Oil.—Julio J. Lamadrid, M.D., of Brooklyn, sends us the following formula for an emulsion of lacto-phosphate of lime, which he recommends in all cases where these remedies are commonly used singly. Dr. Lamadrid has employed the formula for the past three years, and says, "The oil thus prepared is, I believe, more easily digested than when given pure. It has never been detected even by those who most objected to the oil. 'Children will beg you for it,' and adults find it hard to give it up after having taken it for a while; the only objection they have to it being the thickness of the preparation. On this account the question has often been asked of me, 'Doctor, are you giving me condensed milk with some kind of acid?'" Dr. Lamadrid recommends, however, that the composition of the mixture should not be made known to the person who is to take it.

The formula is as follows:

℞ Pulveris acaciæ,		Grammes.
Aquæ, āā.....	℥ i.	31.
Syrupi calcis lacto-phosph.,		
Olei morrhuæ, āā.....	℥ iv.	124.2
Acidi phosphor. dil.....	℥ ij.	7.76
Olei amygdal. amar.....	gtt. vj.	gtt. iij.

Mix the acacia with the water until it is gelatinous, add next the sirup and the acid, and, while trituration is continued, add the oil little by little, and lastly, the oil of almonds.

The dose is a teaspoonful to a tablespoonful three times daily.

Formula for the Combined Administration of Cod-Liver Oil and Phosphorus (*Medical Record*).—Dr. Edward C. Mann has employed the following mixture with the happiest results, patients taking it readily who could not bear the plain cod-liver oil at all.

℞ Ovorum vitell.....	iij.
Olei morrhuæ.....	℥ viij.
Vini Xerici.....	℥ iv.
Acidi phosphorici,	
Syrupi simplicis, āā.....	℥ j.
Aquæ amygdalæ amaræ.....	℥ viij.
Spiritus vini rect.....	℥ j.

Rub the eggs up in a mortar, adding the oil spoonful by spoonful. Last of all add the phosphoric acid.
M.

ITEMS.

College of Pharmacy of the City of New York.—A conversational meeting of the members of the college was held on Jan. 20, at their rooms in the University building. Prof. P. W. Bedford gave some interesting information about various pharmaceutical subjects, among others on Persian opium and its use for morphia manufacture. He also gave an explanation of the weights used in Turkey and Smyrna for the weighing of opium. An imaginary weight called a *cheki* is employed, 8 of which equal 5 Turkish *okes* [1 oke = 400 ℥ Smyrna weight; 1 cheki = 250 ℥].

In this connection Prof. Bedford gave some interesting statistics in relation to the commerce in opium; saying that Europe, North and South America and a portion of Africa receive almost their entire opium supply from Asia Minor; the total amount being about half a million pounds per annum, and embracing very nearly the entire production of this region. In India, where the opium trade is under the control of the British Government, about eleven million pounds of opium are produced annually, and this is consumed in China, where about five million pounds, it is said, are also raised. Thus China consumes about sixteen million pounds of opium annually, while Europe, part of Africa, and the Western hemisphere use but half a million pounds altogether.

He also exhibited one of Becker & Sons' new style prescription balances, of the form of Béranger's scales, contained in a box with a glass cover, and drew the attention of the audience to the fact, that by rubbing the glass over the scale pans, sufficient electricity could be produced to attract one of the pans upwards, thus vitiating the correctness of the scale, which may, however, be immediately restored by simply breathing upon the glass, thus forming a film of moisture sufficient to conduct off the electricity. Afterwards a number of sections of officinal roots, barks and seeds were shown by means of the gas-microscope of Mr. A. A. Starr, who closed the proceedings by an exhibition of his highly instructive and entertaining living microscopic zoological collection.

The examinations of the graduating class will take place on Feb. 24, 26 and 29, on the same plan as in former years, with this modification, however, that the examination in practical pharmacy and prescriptions will be conducted orally.

The commencement will take place at Chickering Hall on Tuesday, March 21, 1876.

The Annual Meeting of the Literary and Scientific Society of the German Apothecaries of the City of New York was held on January the 13th, at their meeting room in Teutonia Assembly Rooms. The reports of the officers show that the Society has now 89 members, an increase of five members during the last year, although it lost three members by death. The Society possesses a library of about 350 volumes, and circulates weekly among all its members the following journals: "Pharmaceutische Zeitung, Central Halle, Archiv der Pharmacie, Ausland, Industrieblätter, Gaca, Aus der Natur, Journal of Pharmacy, American Chemist, Pharmacist, Zeitschrift für analytische Chemie, Berichte der deutschen chemischen Gesellschaft, Wagner's Jahresbericht der chem. Technologie, Sammlung wissenschaftlicher Vorträge v. Virchow and Holtzendorff." The Society held, besides their regular monthly business meetings, several scientific meetings, in which papers were read and discussed. The more interesting of these essays were: "On the Fructification of the Lower Cryptogamous Plants," and "On Mineral Waters," by Mr. Tscheppe; "On Elixirs," by Mr. Balluff; and "On the Chemical Examination of the Malt-Germ," by Mr. Henes. The choice of officers for the ensuing year resulted as follows, nearly all the previous incumbents being re-elected:—*President*, Mr. B. Reinold; *Vice-Presidents*, Messrs. Pfingsten and Tscheppe; *Secretaries*, Messrs. Ruprecht and Fürstenwärther; *Treasurer*, Mr. G. Ramsperger; *Librarian*, Mr. P. Balluff; *Archivist*, Mr. G. Balser. The delegates elected to represent the Society at the meeting of the American Pharmaceutical Association at Philadelphia, are Messrs. Balluff, Reinold, Ramsperger, Tscheppe, and Balser.

New Uses For Paraffine.—A new use for paraffine wax is suggested by an invention exhibited at the Fair of the American Institute in New York. It seems to be an accepted fact that telegraph wires in crowded cities must eventually be laid underground, and probably the greatest obstacle in the way of their very speedy removal from the air to the soil is, that no plan has as yet been devised that is both feasible and economical. The invention to which we allude proposes to draw copper wires through glass tubes, which are in turn enclosed in iron pipes, the glass tube being held firmly in its place by melted paraffine being poured in around it.

Another of the recent uses to which this substance has been put is the preservation of eggs. The eggs are placed under a receiver and the air exhausted, when melted paraffine is introduced, giving to each egg a thin but complete coating, which effectually excludes the air and preserves the egg for a long time. To make the process successful the eggs must be quite fresh when treated.

Combustibility of Celluloid.—The *Scientific American*, in commenting on the recent fire and explosion at the Newark (N. J.) Celluloid Works says: "But not only is the manufacture of crude celluloid dangerous, but even the most finished article made from it will readily inflame. As a practical experiment, any one may take a strong, highly-polished martingale ring of celluloid, which the strength of a horse could hardly break; apply to its surface a lighted match, and it will quickly ignite like a torch.

New Source of Magnesium Sulphate.—A large lake has been discovered about 40 miles west of Laramie, Wyoming Territory, in the bottom of which is a thick layer of sulphate of magnesia, almost in a pure state.

Drug Importations.—The following are the quantities, *in pounds*, of the more important drugs entered at the ports of New York and Boston during 1875:

Acid, carbolic*		50,000
" citric		28,600
" oxalic*		537,846
" picric*		20,000
" salicylic		703
Aconite*		7,300
Aloes*		54,200
Alum, cryst		1,944,000
Aniseed*		124,500
Arnica		21,296
Asafœtida*		80,297
Bals. copaiva*		111,000
" Peru		1,693
" Tolu		10,940
Bark, Peruv.*		4,000,000
Bismuth		6,619
Buchu		2,583
Burgundy pitch		34,614
Cacao butter		5,992
Cantharides		17,000
Cardamoms		20,000
Chloral		2,500
Colocynth		6,944
Colombo		4,533
Cream tartar*		1,060,000
Gentian		24,416
Glycerine*		1,016,000
Gum arabic*		2,175,000
Gum myrrh		77,206
Iodine*		30,000
Ipecac		5,294
Morphine		93½
Nux vomica*		711,000
Oil, croton		1,795
Oil, lemon*		31,500
Opium		166,937½
Pareira brava		595
Phosphorus*		59,300
Potass. bichromate		1,259,431
Potass. chlorate		413,961
Quinia*		3,514
Rhubarb*		40,800
Santonine		50
Sarsaparilla*		705,900
Senna*		153,500
Soda, bicarb		4,278,922
Sodium sulphide		20,803
Squills*		30,200
Taraxacum		1,105
Uva ursi		9,757
Valerian		24,951
Zinc, oxide		1,880,833
Zinc, sulphate		18,637
Brimstone	[tons.]	21,315¼
Soda, caustic	["]	11,228
Soda, sal	["]	11,210
Olive oil	[gall.]	21,315¼

* The articles marked with an asterisk are stated in the nearest round figures.

List of Drugs Rejected at the Port of New York during the Year 1875.—In connection with the foregoing table we give a list of the drugs which failed to pass the inspection of the Customs officers, owing to their not being of requisite strength and purity to entitle them to enter consumption.

Feb. 4.	Three cases of opium.	Damaged—not of requisite strength and purity.
" 13.	Fifty pounds of valerian root.	Damaged—not fit for medicinal use.
Mar. 8.	Two cases of manna.	do. do.
" 12.	One case of opium.	Not of requisite strength and purity.
Ap. 23.	One case powdered jalap.	do. do.
" "	One case of opium.	do. do.
May 7.	One case of cocoa leaves.	Damaged—not fit for medicinal use.
" 21.	Sixty-seven cases of opium.	Not of requisite strength and purity.
June 25.	Five cases powdered rhubarb.	do. do.
July 3.	Five cases opium.	do. do.
" 14.	Six cases powdered rhubarb.	do. do.
" 26.	Five bales of jalap.	do. do.
Sept. 17.	Eleven bales of jalap.	do. do.
Dec. 22.	Nine barrels gum guaiacum.	do. do.

The Peppermint Crop of a single county in Illinois last year reached the value of $500,000.

Fish Flour is an article which for a short time past has been increasing in popularity. It is prepared from dried fish, thoroughly desiccated and then ground in a mill.

A New use for Birch and Maple-Wood.—A stock company has been formed at Hornellsville, in this State, for the manufacture from those woods of the vegetable acids used in printing calico. A gang of choppers are at work there felling the trees, the company having bought a large tract of woodland for the above purpose.

The Imports of Alkali into this country for the seven months ending July 31, show a decrease in value of over $500,000 as compared with the previous seven months.

Liquid Carbonic Acid in Nature.—Mr. W. N. Hartley (England) possesses a specimen of quartz, in the inside of which there is a cavity containing a liquid. This latter was observed to disappear at a temperature of about 36° C., but to reappear on cooling. The actual "critical" point was afterwards accurately determined, and found to be between 30.75° and 31° C. As the temperature at which liquid carbonic acid is transformed into gas is, according to Andrews, 30.92° C., the nature of this fluid is established beyond a doubt.

Dr. Owens, one of the members of the Council of the Irish Pharmaceutical Society, is the Lord Mayor of Dublin for the ensuing year.

Honors.—The Royal Society has awarded its Copley medal this year to Professor A. W. Hofmann, F.R.S., for his contributions to the science of chemistry, and especially for his researches on the derivatives of ammonia. Mr. William Crookes, F.R.S., has received one of the Royal medals for his chemical and physical researches, especially those in connection with thallium, and for his discovery of the repulsion referable to radiation. The other Royal medal has been awarded to Dr. Thomas Oldham, F.R.S., for his services to the science of geology.

M. Wurtz is appointed Professor of Organic Chemistry at the Faculty of the Sciences of Paris.

A new Industry has started into being at the Halles Centrales, Paris. Large wagons loaded with fresh wine leaves arrive early every morning. A crowd of old women, dressed as peasants, surround them, purchase the leaves, wrap them tastefully about lumps of tallow, adroitly colored, and then go from door to door and sell the stuff as fresh butter.

Chicory.—Many persons have a well-grounded objection to the addition of chicory to their coffee. They will find fresh reasons for their objection in the circumstance that four persons have recently been poisoned at Rouen by the use of coffee, with which was mixed what was sold as chicory, but proved to be chicory mixed accidentally with the root of henbane, probably growing in the same field, and carelessly mixed with it.

California Wines.—It is not very likely this country will "go short" on wine soon. In California alone Amador county has 1,680,000 grape vines; El Dorado, 1,410,255; Los Angeles, 4,250,000; Napa, 3,108,590; Sacramento, 2,132,975; San Joaquin, 1,000,000; Santa Clara, 1,213,085; Sonoma, 3,603,385; and Tuolumne, 1,400,000.

Legacies.—The late Sir Charles Wheatstone has bequeathed to the corporation of King's College all his scientific books and instruments, or such portion as the Professor of Experimental Philosophy may think proper to select; together with all the medals and diplomas awarded to him by societies, both at home and abroad, and a pecuniary legacy of 500*l.*, to be expended in scientific apparatus; to the Royal Society of London the portrait of the Hon. Robert Boyle and all the framed portraits of scientific men in his possession, also a pecuniary legacy of 500*l.* to be added to the Wollaston Donation Fund.

The Paris Academy of Medicine has lately been enriched by two legacies. M. Desportes has bequeathed to it a sum of 30,000 francs, to found prizes or award premiums for researches on therapeutic subjects. M. Demarquay has also left a legacy of 100,000 francs to the same body, with which either to found an asylum or to endow a prize for a subject to be left to their own choice.

Mrs. Margaret Chandler, of New York, grand-daughter of Wm. B. Astor, leaves $500 to St. Luke's Hospital.

Quackery in California.—The bill for the suppression of quackery, now before the California Legislature, has brought out the patent medicine men in full force, and it is evident that their purses are longer and fuller than those of the regular practitioners.

The Coca Leaf.—In an introductory address to the Edinburgh Botanical Society, Sir Robert Christison, its president, related some experiments he had been making with a view to test the "coca leaf," which, he explained, was not to be confounded with the well known cocoa. In Peru, where it grows, coca is reported to have remarkable nourishing properties; and, in order to ascertain the precise nature of these, he chewed the leaf by way of stimulant on the occasion of two ascents of Ben Voirlich. On reaching the top he felt greatly fatigued, and began to chew his coca; with the result that he was able to make the descent, not only with firmness, but with almost juvenile elasticity. He further stated, that by its use he had found himself able to walk sixteen miles with ease, although when he attempted this feat without such nourishment he felt greatly fatigued.

D. V. Dean, M.D., late city chemist of St. Louis, has lately been made Associate Editor of the *St. Louis Medical and Surgical Journal*. He was elected to the position by the unanimous vote of the St. Louis Medical Press Association.

The Morphine Habit.—It is stated that in Memphis the demand for morphine has become so large that the local druggists are considering the propriety of not selling the article unless upon the order of a physician or to a well-known citizen.

Vaccine Items.—The story is told of a rural physician who on receiving a sample lot of animal virus on quills, supposed them to be toothpicks, and employed them accordingly.

During a recent discussion on vaccination, it was stated that a druggist who deals in vaccine crusts had some returned to him recently with a letter from the physician stating that he had tried it, and it had failed in every instance. On examination it was found that he had merely chipped off a small amount of the wax covering, but had not even reached the tin-foil surrounding the crusts.

Another doctor boils his quill points thoroughly before using them, and then thinks "they are not so reliable as crusts taken from healthy children."

Carbolic Acid as used for the Purposes of Disinfection.—The following resolutions were adopted at a meeting of physicians recently held in New Orleans:

1. Carbolic acid, as used for purposes of "disinfection" by the Board of Health in New Orleans during the years 1867, 1870, 1871, 1872, 1873, 1874, and 1875, has failed to arrest small-pox, scarlet fever, and yellow fever.

2. Carbolic as used for purposes of "disinfection" by the Board of Health in New Orleans, has in several instances proved injurious to the inhabitants of the "*disinfected*" districts.

3. The facts observed in New Orleans, during the practice of carbolic-acid "disinfection" upon a larger scale than ever before in the history of sanitary science, sustain the view held by high authorities, that it is impossible to disinfect the atmosphere of an entire city, or even of a circumscribed area, as of two or more squares.

Cases of yellow fever have occurred in succession, at long intervals, in houses and localities which have been most thoroughly subjected to the so-called "carbolic-acid disinfection." Instances have been observed where unacclimated individuals, returning from the country before cold weather had put an end to the disease, and entering those districts of the city in which carbolic acid had been most lavishly employed as a "disinfectant," have been attacked by yellow fever.

4. Yellow fever has followed its usual course, increasing up to a certain period, and then declining with the fall of temperature, and ceasing with the appearance of frost. No connection has been traced between the decline and cessation of the disease and the amount of carbolic acid used for the purposes of "disinfection."—*New Orleans Med. and Surg. Journal.*

The Cobalt Hygrometer.—This simple apparatus illustrates the influence of atmospheric moisture on chemical reaction.

"Unsized paper, as thin blotting or filtering paper, is to be dipped into a solution of chloride of cobalt, common salt, and a little gum arabic. It is red at first, but while drying becomes more pink, bluish-red, and finally blue when quite dry. As the paper thus prepared is slightly hygroscopic it will easily attract atmospheric moisture, and be colored more or less reddish in proportion as it finds more moisture to attract. The *Manufacturer and Builder* suggests, if it is to be used in very dry climates, as in some of our Western regions, a very little glycerine or chloride of calcium may, perhaps, be added to the solution, when it will be more capable of indicating the differences in moisture in comparatively dry air. A good addition to this arrangement is a disc painted with half a dozen or more shades of red and blue for comparison, as enumerated below, which shades may then be marked thus:

Rose-red,	Pink,	Bluish-pink,	Lavender,	Violet,	Blue,
Rain.	Very moist.	Moist.	Middling.	Dry.	Very dry.

Anti-pruritics.—A suffering doctor thus expresses his experience: "The latest agent put forward is a combination of equal parts of camphor and hydrate of chloral, smothered in 'cold cream.' Well, let a sufferer try the remedy, and if he doesn't curse the inventor, his pruritus has not disturbed his temper, as it has done mine."

Providence in Therapeutics.—The growth of both the grape and cork tree in Spain has been cited as an example of the beneficent work of Providence, in placing together factors necessary in working the vinous problem. After much less than seven years' thought upon the subject, a contemporary has discovered a much more striking instance of the beneficence of Providence in this line. The meanest kinds of corn whiskey contain the most fusel oil, but this fusel oil, by oxidation in the blood, becomes valerianic acid, one of the active principles of valerian, which of all remedies is perhaps most esteemed in cases of delirium tremens. "Old Soakers," when they wish to "sober up," almost invariably call for tincture of valerian, or elixir of valerianate of ammonia, basing their choice upon experience.

Ice and the Price of Oils.—A recent number of the *Oil, Paint & Drug Reporter* says: "Perhaps our readers are not aware how important a part ice takes in the manufacture of oils. The price of ice makes a great difference in the cost of lard, cotton-seed, and paraffine oils, particularly the latter, which can hardly be made without consuming large quantities. The almost unprecedented warm winter thus far has caused the ice companies to refuse to make contracts at anything like a reasonable price, and some of our manufacturers of oils are exceedingly troubled. There are prospects of a colder season, and we may yet be enabled to get a fair crop, but we can hardly have as low prices as last year, and consequently those oils in which so much ice is consumed will probably have to rule higher in price next spring and summer."

Miss Isabella Skinner Clarke passed the major examination in December last, and thus became the first lady "pharmaceutical chemist" in Great Britain. At the January meeting of the Pharmaceutical Council she was an applicant for membership in the Society. Following considerable discussion the vote was against her admission by seven to six.

A New Insecticide.—*The Garden* reports that at the last meeting of the Royal Horticultural Society the Hon. Rev. J. T. Boscawen called attention to the insecticidal properties of a compound consisting of camphor dissolved in methylated spirits to saturation, and mixed with soft soap to the consistence of a cream. When diluted so as to be fit for use with a syringe, this had been found a most efficacious substitute for fumigation in the case of mealy-bug, scale, red-spider, etc.

Personals.—Mr. C. H. Wood, formerly well known in the Pharmaceutical Society of Great Britain, and lately Government Quinologist at Darjeeling, has been appointed Professor of Chemistry in the University of Calcutta. He is succeeded at Darjeeling by Mr. Gammie.—The successor of Liebig in the professorship of chemistry in the University at Munich is Prof. Baeyer, of Strassburg.

Condensed Eggs.—A factory has lately been established at Passau, in Bavaria, to work a process for supplying the nutrition of eggs in a condensed form. The method adopted seems to be merely that the eggs are dried and then reduced to a fine meal. This is packed into air-tight tins, and thus a supply of the most complete food is provided in the smallest possible compass.

Adulterations of Food.—As a measure of the extent to which the adulteration of butter is carried on in England, it is stated that from one manufactory alone 4,000 pounds of doctored stuff are ascertained to issue daily. A curious method of sophisticating oysters is also practised in England. There is a French variety of the oyster in great repute—the Marennes, dredged in the vicinity of La Rochelle, and the flesh of which is of a deep green, said to be produced from feeding on the infusoria of the estuary where the oysters are stored. An imitation article is alleged to be produced in Falmouth by watering ordinary oysters with solutions of copper.

Sir Astley Cooper's Fees.—*The Medical Press* gives the following extract from the diary of the late Mr. Mewburn in relation to the fees received by Sir A. Cooper, as taken from his account book:

"My receipt for the first year was 5*l.* 5*s.*; for the second, 26*l.*; the third, 64*l.*; the fourth, 96*l.*; the fifth, 100*l.*; the sixth, 200*l.*; the seventh, 400*l.*; the eighth, 610*l.*; the ninth, 1,100*l.*

"In 1851, Sir Astley made 21,000*l.*! A Mr. Hyatt, an ancient merchant, gave him 1,000*l.* on recovery under his care; and Mr. Coles, of Mincing Lane, for a long course of time gave him 600*l.* every Christmas."

Castor-Oil Waste as a Fertilizer.—The depredations of the wild pig upon the coffee plantations in Ceylon have been a source of considerable loss to the planters. A correspondent of *The British Trade Journal* says that the remains of the cocoa-nut, after its oil has been expressed, have been in vogue for manuring the coffee bushes for a considerable time past. But unfortunately this refuse has long been regarded by the wild hog with such favor, that it spares no pains to get at it, even although the fertilizer is buried in the soil. Accordingly it was no uncommon occurrence for the superintendents, on walking over certain plantations in the early morning after this substance had been applied round the roots of the trees, to find the pits turned inside out and their contents devoured. The remedy now employed is powdered castor-cake, consisting of the crushed remnants of the castor-bean after it has yielded its oil, an article with the characteristic flavor, which the pachyderm declines to touch. In addition to its being safe from this animal, the fertilizing influence of the powder is described as being very marked, 1 lb. weight per tree having rewarded a planter with 1 cwt. of coffee per acre. Castor-cake is produced in India and is sold in Colombo in a ground state at 75 rupees ($34.50) per ton.

An Early Mention of Jaborandi.—In the works of the Hon. Robert Boyle, London, 1772, vol. iii., p. 155, Dr. Pix's *Travels in South America* are quoted from. The latter says: "I saw divers, as it were, in an instant redeemed from death, who had been poisoned by the eating of numerous mushrooms and other unwholesome things, only by drinking an infusion of the root of jaborandi, whilst myself and others of Galen's disciples blushed to see the ineffectual endeavors of all our alexipharmacy, treacles, and other antidotes; so that I afterwards suffered myself to be joined in consultation with these barbarous colleagues, not so much to be the arbiters of the conditions of our men by their pulse, as to their assistance and counsel in the abovementioned way, viz., the prescribing of proper medicines."

Dysiot is the name of a new alloy introduced lately by a German firm. It is composed of 62 parts copper, 18 parts lead, 10 of tin, and 10 of zinc, forming a sort of whitish brass, readily fusible.

Bee Statistics.—Out of the 40,000,000 people in this country, about 70,000 are bee-keepers, and these send to market about 15,000,000 lbs. of honey and wax yearly, representing in value $3,676,703 for the former, and $189,388 for the latter.

Wear of Platinum Vessels in Sulphuric-acid Manufacture.—According to A. Scheurer-Kestner, 1,000 kilos. of boiling sulphuric acid, free from nitrogen oxides, and containing 94% of H_2SO_4, dissolve 1 gm. of platinum; when of 98%, 6-7 gm. of platinum; and if carried to 99.5%, 9 gm. In presence of nitrogen oxides the wear is considerably larger.

Communications have been received from Geo. M. Kober, M.D., Camp McDermit, Nev.; Dr. Wells, Geneseo, Ill.; Dr. Wm. Ackerly, Lost Nation, Iowa; W. W. Ely, M.D., Rochester, N. Y.; J. E. Armstrong, New York, N. Y.; Jas. A. Shiels & Co., New York, N. Y.; Wm. L. Headley, M.D., New York, N. Y.; M. E. Poynter, M.D., Midway, Ky.; E. C. Atkinson, M.D., Dover, Iowa; Mr. F. Toussaint, New York, N. Y.; and J. J. Lamadrid, M.D., Brooklyn, N. Y.